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# Cost Absorption Plan Worries Midwest

## Chicago Market Reports Buyers of Paper Increase With Declining Activity In Waste Paper Collections — Analyzes Newsprint Price Increase — Paper Milk Containers Are Still Under Discussion.

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., December 10, 1945—In the opinion of both mill representatives and paper jobbers there are more paper buyers in this market now than ever before. If the actual count is not a true one, at least, as one paper trade executive put it, "it seems like it." The general pressure for more paper simply makes the current and future outlook that much more perplexing, for the mills are busy as they can possibly be while there seems to be no little real relief in sight in the way of an increase in production of any substantial nature. The labor market continues to give the industry the most worry, although seasonal difficulties are, of course, adding to the perplexities of the situation.

No real relief has been received from OPA from the pricing point of view although from a production standpoint the industry is—at least on paper—getting slowly back to normalcy. Increased operating costs, the wage situation and cost of materials are all combining to make the cost-absorption principle a serious one, according to reports here.

Marketwise, there is no change as far as the overall picture is concerned. Government demand for paper continues to loom as a big factor while jobbers, in turn pressed for paper from all sides, are doing their level best to build up sadly depleted inventories.

Little interest is in evidence as far as outside interest in the waste paper market is concerned. Professional elements are doing a creditable job but, reportedly, not sufficient to handle mill requirements, at least from this section of the country.

### Analyze Newsprint Boost

Chicago paper trade executives gleaned some ray of hope from this week's announcement that an increase of $6 a ton had been granted to the newsprint industry. Of real importance, local commentators said, was OPA's own statement accompanying the price rise announcement which stated, in part, that "the increase is to assure prices that are generally fair and equitable and should operate to check further decreases in the United States newsprint production, which has been gradually declining for some years." The OPA added that "increased production costs, principally for pulpwood and fuel, have pulled the newsprint industry's earnings below that level which requires that earnings be maintained at the 1936-1939 level." The boost will raise newsprint prices in the country about $19,500,000 annually, the estimate said, but newspaper publishers are reported to be happy about paying the increase as long as it insures an increase in production instead of—as one merchant put it—"a brake on present and future production programs." The increase is actually the fourth since newsprint was put under price control in March, 1942, at $50 a ton.

Local paper jobbers and manufacturers, hard pressed for paper and tracing a part of the shortage back to OPA policies of refusing price adjustments or of attacking the problem too slowly, are hopeful that the "go" sign to the newsprint industry may augur well for a recognition of the same set of factors in other paper lines and grades.

### Pros and Cons on Paper Milk Containers

A paper industry interested in future uses of paper and like products, cannot help but be interested in one of those "question" columns which most newspapers feature and which was devoted to the question "Do you prefer the milk bottle or the paper carton containers."

The "score," with five people interviewed, was three in favor of the paper carton and two still loyal to the old style bottle. Those who preferred the paper container said they were "more convenient" they "eliminate the necessity of carting bottles back to the store for the deposit," "they are more sanitary," they are "compact and light" and "don't take up so much room." Other favorable comments were "they remove the worry of whether or not they were properly sterilized."

The two women who still preferred the old style container said they believed "the milk kept better in the glass bottle and did not sour so quickly" and even "transferred the milk from the paper to the glass bottle" if they "happened to get the paper carton at the store." Another house wife says, "I prefer the glass bottle. When the milk comes out of the paper carton it tastes as though some of the wax had come off and is mixed in with it." Other comments were "the paper cartons are messy," "I can't get the caps back on right." "They bend easily and are just too fragile for my use." "They leak occasionally, though that is usually the fault of the packing!"

All of which is fodder for the maker, jobber and advertiser of the milk carton and, according to Chicago reports, "gives us something to think about."

### Opposes Special Truck Rates

A. H. Schwietert, director of the transportation division of the Chicago Association of Commerce,

*(Continued on page 40)*

# Holyoke Mills Expect Tight Market

## Current Production In New England Would Be Higher If Price and Wage Difficulties Were Solved — Paper Market Reports Big Backlogs — Hinsdale Mills Resume Operations — Other News.

HOLYOKE, Mass., December 9, 1945—A tight paper market in this country for the first six months of 1946 is expected in trade circles here. According to reports output in recent weeks has been running at the highest levels since 1941 and production and imports of wood pulp have been maintained above 1944 rates. However price and the labor supply constitute the most retarding influences at both paper mills and in pulp and import divisions. Rising production costs, combined with rigidly controlled selling prices limit profits.

Because of these difficulties, it is said, current output is not cutting down the backlog of unfilled orders. The demand for fine, book and magazine stock has increased sharply and a considerable amount of substitution will be necessary in some grades of paper in the future.

### Hinsdale Plants Resume Operation

About 200 employes of four paper mills and one paper converting plant at Hinsdale, N. H., returned to work last week with a general 10-cent hourly wage increase after having been on strike for two weeks. Effective immediately the workers also get two-cent differential during the 3 p.m. to 11 p.m. shift and four cents during the 11 to 7 shift. The workers had struck for a 15-cent raise and had rejected an eight-cent compromise offer.

Edward M. Moore of Holyoke represented the workers who voted to accept the offer made at a conference with management. The mill owners were represented by Harold T. Martin of Holyoke, labor relations adviser. Some of the new rates resulting from the 10-cent raise follow: (paper mills) common labor base rate, 65 cents an hour; backtenders, 74; machine tenders, 89; (converting plant) male base rate, 65; female base rate, 60. Maintenance men go up to 79 cents under the new rate.

### Holyoke Unions Reject Offer

Holyoke unions' rejection of the paper manufacturers offer of a five-cent hourly wage increase was formally conveyed to management in a conference Friday in the office of Harold T. Martin, labor relations representative. Eagle Lodge of Papermakers and local 226, the finishers' union, in a joint meeting voted to reject the five-cent offer and stick to their demands for a general 15-cent hourly increase. The unions of the Strathmore Paper company's mills in Woronoco and West Springfield took similar action.

The present minimum in Holyoke paper mills is 55 cents an hour for women and 64 for men. The 64-cent minimum is paid for ordinary labor. In the actual manufacturing processes the minimum ranges from 70½ cents for a beater's helper to $1.10 and $1.16 paid to machine tenders on various sizes of machines. A few color specialists get more than this. The 55-cent rate is general for a large number of women workers who are chiefly engaged on finishing and other processes between manufacture and shipment.

The 15-cent raise would bring the women up to 70 cents an hour and the highest paid machine tenders up to $1.31.

The ten-cent hourly raise just granted by the Stevens Paper Company is not comparable in the Holyoke picture for the old rate there was only 55 cents and the raise brings it up to 65 which is only a penny more than the Holyoke minimum for men.

### Conciliator Reinstates Employes

Two employes of the Brightwater Paper Company at North Adams, whose dismissal October 6 resulted in 98 per cent of the employes of the company remaining away from work for a week, starting October 8, returned to work last week. The dispute went to arbitration. The ruling of Maxwell Copelof, arbitrator for the U. S. Conciliation Service, directs that the two workers be reinstated and reimbursed for the loss of earnings they actually suffered from the time of their discharge to the time of their reinstatement.

### Collins Reorganizes

The Collins Company, Inc., North Wilbraham, has a new charter of incorporation of which Paul C. Bast is president and treasurer. Purposes as given in the charter "to deal in, process and manufacture paper and paper products." Capital 500 shares no par stock of which 240 shares are paid in. This is apparently a charter of the new company to take over and continue operation of the mill formerly known as the Collins Manufacturing Company.

### Leonard Smith Retires

Leonard Smith of 178 Woodbridge street, Holyoke, superintendent of the Pearl City American Tissue mills division, has resigned effective December 22 and he and his wife plan to spend the winter at Long Beach, Calif., where they will visit with their son-in-law and daughter, Mr. and Mrs. Alvin Johnson. Mr. Smith has been superintendent at the Pearl City mill for 28 years and prior to that had worked here in various capacities. He has been associated with the B. F. Perkins organization, owners of the mill and others in Holyoke and Willimansett, for 50 years.

### Parsons Employes Celebrate

The ninth annual Christmas part of Parsons Paper Company union, AFL, will be held Saturday night at the Highland hotel, Springfield. William Illis is chairman of the committee in charge and is being assisted by Miss Stasia Ossolinski and Mrs. Stella Gerick.

## Robert H. Evans Now with Riegel

Robert H. Evans, until recently chief of the Pulp Allocation Office of the War Production Board, has accepted a position as executive assistant to the management of the Riegel Paper Corporation. He will also serve the Riegel Textile Corporation in a similar capacity. Mr. Evans joined the WPB early in 1942, and for some years before that was with the Investment Department of the Fiduciary Trust Company, of New York. He will make his headquarters in the New York office of the Riegel companies.

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# Appleton Co. Wage Raise Suits Employees

## New Starting Rate Will Be 73 Cents Per Hour For Male and 60 Cents Per Hour For Female Day Workers—Supervisors Hold Joint Meeting—Mills Receive Safety Awards—Other Industrial News.

APPLETON, Wis., December 10, 1945—About 235 employes of the Appleton Coated Paper Company, members of the Associated Unions of America, have been granted was increases. The new contract was approved by the union at a recent meeting, according to Donald F. Cameron, Milwaukee, Wis., union representative.

Effective December 3, male employes are receiving 6 cents more per hour, and female employes 5 cents more. Mr. Cameron said the company is operating on a 48-hour week now but that the new agreement provides that further wage increases be negotiated when the company reduces hours per week.

Under the new schedule, the starting rate for male day employes is raised to 73 cents per hour, and the rate for female day employes is raised to 60 cents.

### Consolidated Presents Deeds to City

Three more deeds to property to be used in the beautification of the Wisconsin river bank at Wisconsin Rapids, Wis., have been presented to that city by the Consolidated Water Power and Paper Company. Consolidated and Ahdawagam Paper Products Company over the last year have bought and turned over to the community an entire strip of land along the river. The owner of another piece of property has agreed to sell it to Consolidated, which will present the deed to the city. One remaining area is still in private hands, but Consolidated is negotiating for it.

### Workers' Safety Meeting Largely Attended

About 900 mill workers attended the fourth of a series of safety meetings in connection with a safety contest at the Kimberly, Wis., mill of Kimberly-Clark Corporation, Thursday, December 6. V. E. Anderson, Madison, of the Wisconsin Schools of Vocational and Adult Education presented electrical displays and demonstrations on electric hazards in the shop and at home. Harold Heller of the Chlorine department at the mill was master of ceremonies. Santa Claus distributed gifts after the program.

### Supervisors Hold Joint Meeting

The Badger-Globe Foremen's Club sponsored a joint meeting of Lakeview and Badger-Globe Supervisors' Clubs following a 6:30 dinner at the Valley Inn, Neenah, Wis., on Monday evening, December 10.

Discussion centered on the "application of work simplification methods by foremen," and brought to Neenah, P. K. Povlson, Racine, vice-president in charge of operations at the J. I. Case Company, as the principal speaker. After his talk, a panel of experts, Mr. Povlson, R. E. Risley of Marathon Corporation, Menasha, Wis., and Harry Torrence, Milwaukee Chain Belt Company, Milwaukee, Wis., presented a discussion, with Warren Whitlinger of the Kimberly-Clark Corporation, Neenah, serving as coordinator.

Among the topics were employer and union views on labor savings, how foremen can justify work simplification to workers, how to develop interest in simplification methods, how foremen can be trained in time and motion study of work simplification, the effect of such study on product quality, and how work simplification technique can be applied to machine based operation, maintenance operation which does not repeat, or office procedures where complicated records are kept.

The program was part of the regular foremen's training program which is in its second year at the Badger-Globe mill of Kimberly-Clark.

### Consider "Walkie-Talkie" to Aid Navigation

Feasibility of using the "walkie-talkie" radio communicatian system for signalling lock and bridges on the passage of boats on the Fox River will be discussed at a public hearing in Appleton on Tuesday afternoon, January 8, 1946, according to Col. McD. L. Weinert, district army engineer, Milwaukee.

The Fox is an arterial for transportation of coal and other supplies to paper and allied industries in the valley. The radio communication system has been suggested with a view of eliminating noise and whistle signals, especially at night.

### K.-C. Association Holds Christmas Party

A Christmas party for members of the main office, Kimberley-Clark Activities Association, was held Saturday evening, December 8, at the Valley Inn, Neenah. Dinner music was provided by a string trio from the Lawrence Conservatory of Music at Appleton, and an orchestra provided music for dancing.

### Gilbert Employes in Winter Frolic

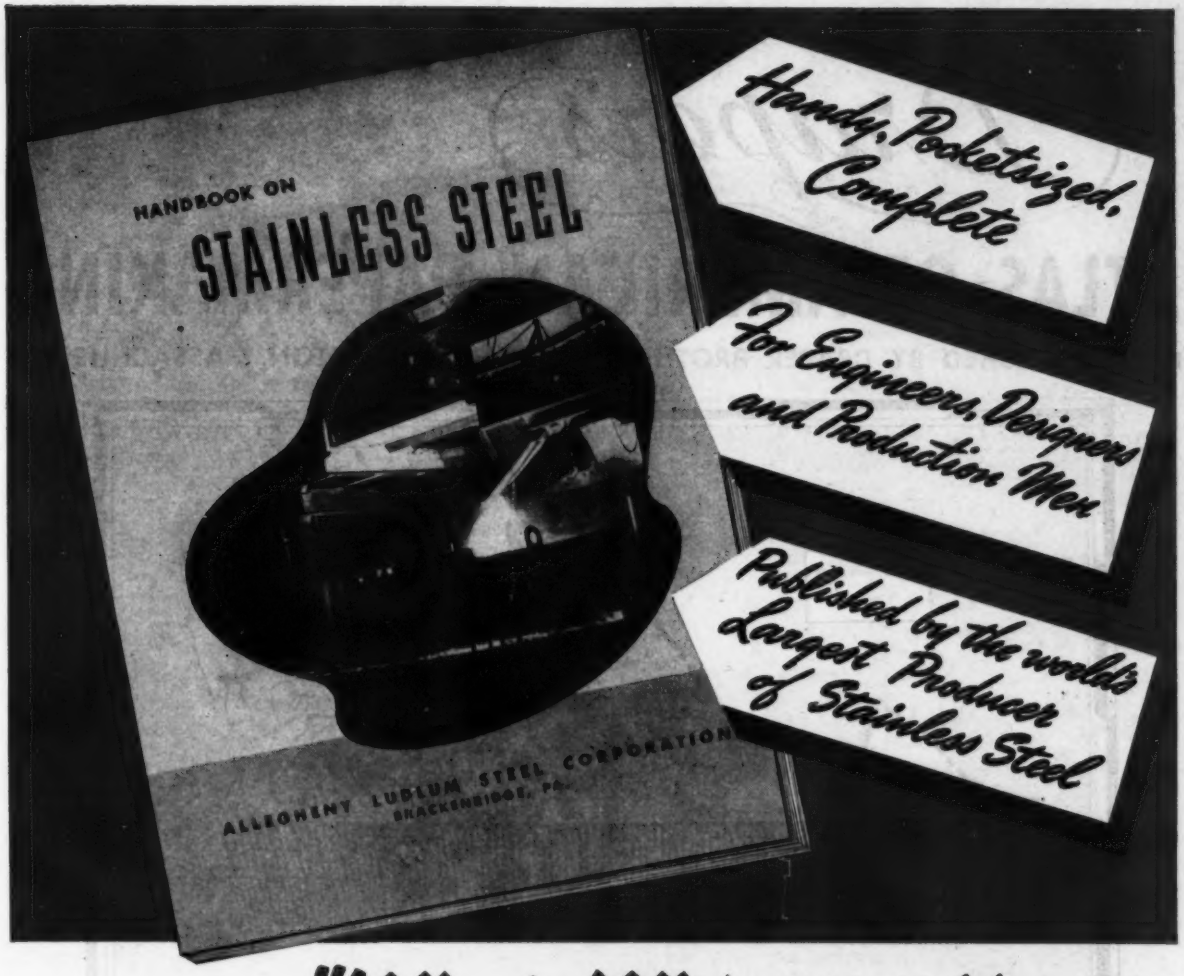
The Gilbert Paper Company, Menasha, Wis., held its winter frolic at Germania hall Sunday evening, December 2, with 375 company employes, their wives and friends in attendance. Cards were played and a dance was held in the evening.

### Mills Receive Four Safety Awards

Four National Safety Council awards to mills of the Kimberly-Clark Corporation, Neenah, Wis., were announced by the company last week, following award ceremonies at three Neenah and Appleton mills, Lakeview, Badger-Globe and Atlas, and the Quinnesec mill at Niagara, Wis.

The mill records which earned awards were as follows: Lakeview (Group A, pulp and paper section) finished in tenth place in reduction of accidents among a group of 56 competing mills, with a reduction in accidents of 41%; Badger-Globe, eighth place in accident reduction among 44 competing mills in Group B, with a percentage reduction of 31%; Atlas Mill (grouped in paper and board re-manufacturing class) second among 44 competing mills, with a reduction record of 52%. The average frequency rate is also a factor in National Safety Council determination of award winners. The Niagara mill set the pace for Kimberly-Clark mills by taking second place in Group B of the national contests.

Cola G. Parker, Kimberly-Clark president, made the awards.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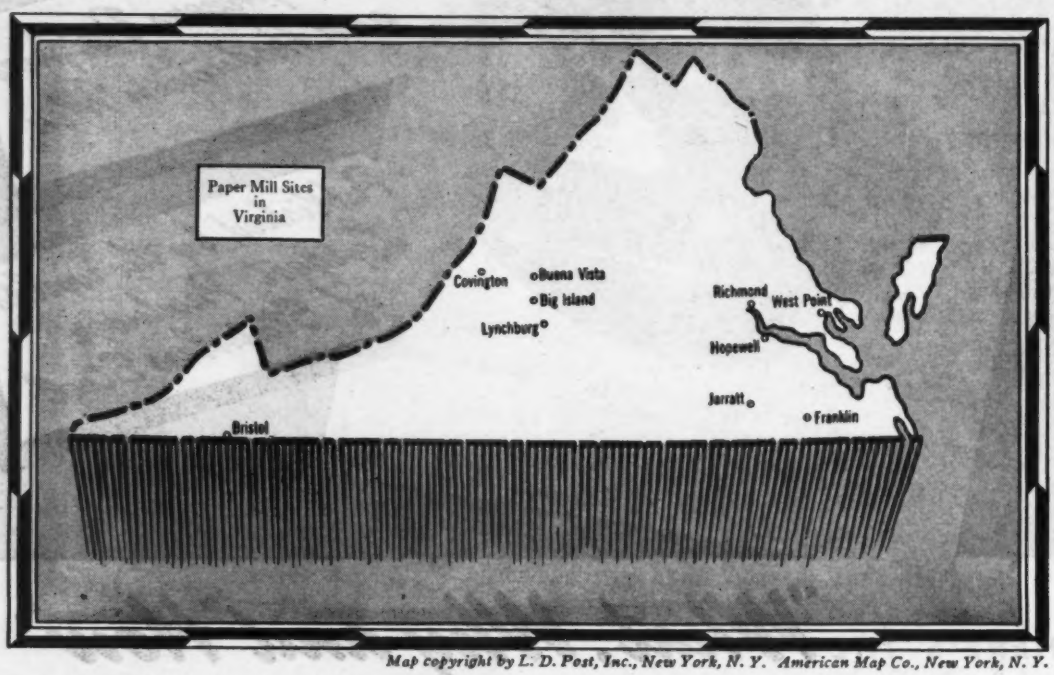
# ATLAS OF AMERICAN PAPERMAKING

**No. 11 PUBLISHED BY DRAPER BROTHERS COMPANY • CANTON, MASSACHUSETTS**




*Map copyright by L. D. Post, Inc., New York, N. Y. American Map Co., New York, N. Y.*

Williamsburg, Virginia, was the site of the first paper mill built in colonial times south of Pennsylvania. The year 1744, is the date generally accepted when William Parks, "father of journalism in Maryland and Virginia," established (with the aid of Benjamin Franklin), Virginia's first paper mill.

The importance of this mill was quite out of proportion to its product, for that was largely devoted to the publications of Parks, who served from 1732 until the time of his death, 1850, as Public Printer for the Colony of Virginia. His biographer, Lawrence C. Wroth, says of him, "I believe, however, that Franklin alone excepted, there was no printer of his place and period whose service was greater or more distinctive in character than that rendered to the colonies of Maryland and Virginia by this pioneer printer," and that there was none "whose service to typography and letters in America presents a greater claim on the interest and gratitude of posterity."

After Parks' death the acting executor showed in his report of the estate "£96/3/9. By sale of the paper mill." It is believed the plant continued to operate as late as 1770.

From this acorn-small beginning papermaking in Virginia has grown until, in accordance with census statistics for 1940, the State ranks 11th in tonnage produced, with a total for the year of 577,625 tons. Paperboard constitutes over one-half the product, book, blotting, kraft and specialty papers compose the balance.

Equipment includes 24 Fourdriniers, 3 cylinder machines, 10 wet machines. The pulp mills containing 70 digestors and 60 grinders make all sorts of wood pulps.

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# COLUMBIA CUSTOMERS WERE FIRST TO PROFIT

Through the years, Columbia has effected numerous improvements in the manufacture, distribution and handling of alkalies. Important new products have been introduced—in 1945 alone, for example, these included Butadiene Monoxide, Diglycol Chloroformate, Butyl Diglycol Carbonate, Butoxyethyl Diglycol Carbonate and Phenyl Diglycol Carbonate.

Although some Columbia developments are now widely used throughout the industry, Columbia customers were *first to benefit*—through better performance of chemicals in their processes . . . through substantial savings in their operating costs . . . through production of better finished goods.

**NEW COLUMBIA BARGES**

designed specifically to transport Liquid Caustic Soda and Liquid Chlorine—were first to bring important advantages to customers with plants located strategically in relation to inland waterways.

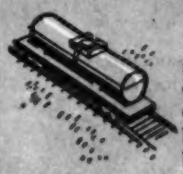
**GLASS MANUFACTURERS**

were first to obtain Soda Ash in controlled particle sizes matching those of the sand—providing a more uniform mix and more dependable results in glass products.

**USERS OF PIGMENTS**

have found those unique Columbia pigments, Calcene T and Silene EF, to be of immeasurable value, particularly in obtaining desirable qualities in both synthetic and natural rubber stocks.

**USERS OF COLUMBIA CAUSTIC SODA**



through improved tank cars—were first to receive 73% Caustic Liquor without danger of metallic contamination . . . to be relieved of the necessity of steaming cars under all but extraordinary conditions . . . first to benefit through using Columbia unloading and handling procedures . . . first to obtain high grade diaphragm electrolytic Caustic, purified by a patented Columbia process.

These few examples are indicative of the results of a progressive policy . . . a policy which will continue to bring Columbia customers the advantages of many more "firsts."

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Seventy-five years ago, the American paper industry was just beginning its great period of expansion. Since then paper, at lowering costs and in increasing volume, has changed the course and character of civilization, spreading culture and education, stimulating business, elevating the standard of living. The progress of the paper industry has paced the progress of America.

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As the world's largest manufacturer of papermakers' felts, F. C. Huyck & Sons, in observing its 75th Anniversary, salutes the paper industry for its magnificent contribution to the winning of the war, and looks forward to a continuation of the policy it has so long pursued, seeking new and better ways to help produce more and better paper—the product most used by man.

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**Faith** . . . *faith in the future . . . faith in men of good will . . . eternally, these are the essence of the Christmas Season. As we pause to express Greetings to our friends in all those industries we serve, we renew our pledge of unstinted cooperation for the year ahead.*

NATIONAL ANILINE DIVISION • ALLIED CHEMICAL & DYE CORPORATION

# Congressional Committee Opens Paper Bids

## Proposals For Supplying the Government Printing Office With A Variety of Paper For the Three Months' Period Beginning January 1 Are Received Monday—To Consider the Awards December 17.

WASHINGTON, D. C., December 10, 1945—Bids were opened on Monday by the Joint Congressional Committee on Printing for paper for the use of Government Printing Office for the three-months period beginning January, 1946. As has been the case quite commonly of late when proposals were advertised for supplying the Government Printing Office with paper for three-months and six-months periods, no bids were submitted on quite a few items. In cases of this kind, the paper will, as usual, have to be purchased on the open market. The committee will meet December 17 to consider awards. The bids received today were as follows:—

**Newsprint**

No. 1—500,000 lbs., 24x36—64; rolls, 19, 24, 36 and 48 ins. wide (3-inch fiber cores, weight of cores and wrappers shall be included in net weight).

**Catalog News**

No. 2—200,000 lbs., 24x36—45; rolls, 28, 38 and 48 ins. wide (3-inch fiber cores). (Weight of cores and wrappers shall be included in the net weight.)

**Machine-Finish Book**

No. 3—50,000 lbs., 25x38—70; flat, cut any size, min. 21 ins., max. 48 ins.

No. 4—400,000 lbs., 25x38—70; flat, cut 24x38, 28x38, and 38x48 ins.

No. 5—400,000 lbs. 25x38—70; flat, cut 24x38, 28x38, and 38x48 ins.

No. 6—300,000 lbs., 25x38—70; rolls, 28½ ins. wide (3-inch fiber cores).

No. 7—400,000 lbs., 25x38—70; rolls, 19 and 38 ins. wide (3-inch fiber cores).

Stanford Paper Co. ..... (200,000 lbs. only) 7.59c
Paper Corp. of U. S. ..... (400,000 lbs. total either lots 7 or 8) 7.59c

No. 8—400,000 lbs., 25x38—70; rolls, 19 and 38 ins. wide (3-inch fiber cores).

Paper Corp. of U. S. ..... (400,000 lbs total either lots 7 or 8) 7.59c

**English-Finish Book**

No. 10—200,000 lbs. 25x38—90; flat, cut any size, min. width 24 ins., max. width 48 ins.

**Offset Book**

No. 19—100,000 lbs., 25x38—80, flat, cut any size, min. width 24 ins., max. width 48 ins., the grain to run lengthwise of the sheet.

Paper Corp. of U. S. ..... 9.27c

No. 20—2,000,000 lbs., 25x38—100; flat, cut any size, min. width 24 ins., max. width 48 ins., the grain to run lengthwise of the sheet.

Central Ohio Paper Co. ..... (150,000 lbs. only) 8.13c

**Offset Poster**

No. 21—500,000 lbs., 25x38—120: flat, cut any size, min. width 24 ins., max. width 48 ins., the grain to run lengthwise of the sheet.

**Antique Book .**

No. 22—50,000 lbs., 25x38—90 and 120; flat, cut 33x43 and 38x50 ins.

**Lightweight Machine-Finish Book**

No. 23—50,000 lbs., 25x38—60; flat, cut 28x38 and 38x48 ins.

**50% Antique Book**

No. 26—50,000 lbs., 25x38—80; flat, cut 32x48 and 38x48 ins.

Aetna Paper Co. ..... 16.94c

No. 27—40,000 lbs., 25x38—80; flat, cut 22¼x31½ ins. (Shall be suitable for writing on with ink).

Aetna Paper Co. ..... 16.94c

**Supercalendered Book**

No. 33—200,000 lbs., 25x38—90; flat, cut any size, min. width 24 ins., max. width 48 ins.

No. 34—600,000 lbs., 25x38—90; rolls, 28½ ad 38 ins. wide (3-inch fiber cores).

R. P. Andrews Paper Co. ..... (400,000 lbs. only) 7.33c

**Machine-Coated Book**

No. 37—600,000 lbs., 25x38—100; flat, cut any size, min. width 24 ins., max. width 48 ins.

Barton, Duer & Koch Paper Co. 6.32c

No. 38—100,000 lbs., 25x38—120; flat, cut any size, min. width 24 ins., max. width 48 ins.

Barton, Duer & Koch Paper Co. 5.87c

**Dull Coated Book**

No. 42—40,000 lbs., 25x38—140; flat, cut 28x41 and 32x42 ins.; the grain to run lengthwise of the sheet.

**Chemical Wood Mimeographed, White and Colored**

No. 45—1,500,000 lbs., white, No. 40; flat, cut 32½x42½ and 38x48½ ins.; the grain to run as ordered.

R. P. Andrews Paper Co. ..... (200,000 lbs. only) 7.24c
Barton, Duer & Koch Paper Co. (400,000 lbs. only) 7.28c

**25% Mimeograph**

No. 47—100,000 lbs., No. 40; flat, cut 32½x42½; 34½x44; and 38x48½ ins.; the grain to run as ordered.

Old Dominion Paper Co. ..... 10.18c
Aetna Paper Co. ..... 9.59c

**Duplicator Copy Paper, Liquid Process, White and Colored**

No. 48—200,000 lbs., white, No. 40; flat, cut 32x42 and 34x44 ins.

Stanford Paper Co. ..... 9.60c

**Blue U S M O Safety Writing**

No. 50—100,000 lbs., No. 32; rolls, 22 ins. wide, 24 ins. in diameter (3-inch fiber cores).

R. P. Andrews Paper Co. ..... 12.83c
D. L. Ward Co. ..... (50,000 lbs. only) 12.79c

**Chemical Wood Writing, White and Colored**

No. 52—200,000 lbs., white, No. 26, flat, cut any size, min. width 21 ins., max. width 48 ins.

Stanford Paper Co. ..... 9.68c

No. 53—2,000,000 lbs., white, No. 32, flat, cut any size, min. width 21 ins., max. width 48 ins.

R. P. Andrews Paper Co. ..... (200,000 lbs. only) 7.82c

No. 54—2,000,000 lbs., white, No. 40, flat, cut any size, min. width 21 ins., max. width 48 ins.

No. 55—1,000,000 lbs., white, No. 32; rolls, min., width 16 ins., max. width 48 ins. (3-inch fiber cores).

R. P. Andrews Paper Co. ..... (450,000 lbs. only) 7.59c
Stanford Paper Co. ..... (100,000 lbs. only) 7.63c

No. 56—600,000 lbs., white No. 40; rolls, min. width 16 ins., max. width 48 ins. (3-inch fiber cores).

No. 57—100,000 lbs., colored, No. 26; flat, cut any size, min. width 21 ins., max. width 48 ins.

No. 58—1,000,000 lbs., blue, buff, green, pink, salmon and yellow, Nos. 32 and 40; flat cut any size min. width 21 ins., max. width 48 ins. Min. order, one color, 10,000 lbs.

**Chemical Wood Writing (Titanium Dioxide Filled)**

No. 61—500,000 lbs. No. 32; flat, cut 34x44 ins.

Barton, Duer & Koch Paper Co. 8.83c

**50% White Chart, Lithograph-Finish**

No. 68—500,000 lbs., No. 72; flat, cut any size, min. width 22 ins., max. width 46 ins.; the grain to run lengthwise of the sheet unless otherwise specified.

Franklin Research Co. ..... 19.425c
Barton, Duer & Koch Paper Co. (100,000 lbs. only) 19.00c

**Chemical Wood Manifold, White and Colored**

No. 71—300,000 lbs. white, No. 18; flat, cut 21x32, 28x34, 32x42 and 34x44 ins.; the grain to run 21-inch and 42-inch ways.

Graham Paper Co. ..... 11.33c
Cauthorne Paper Co. ..... 11.00c

No. 73—100,000 lbs., blue, cherry green, pink, salmon and yellow, No. 18; flat, cut 21x32, 22x34, 28x34, 32x42, and 34x44 ins.; the grain to run the 21-inch and 42-inch ways. Min. order, one color, 5,000 lbs.

Graham Paper Co. ..... 12.40c

**50% Manifold, White and Colored**

No. 76—100,000 lbs.; white, No. 18; flat, cut 21x32, 22x34, 28x34, 32x42, and 34x44 ins.; the grain to run the 21-inch and 42-inch ways.

Old Dominion Paper Co. ..... (600,000 lbs. only) 22.997c

No. 78—60,000 lbs., blue, cherry, green, pink, salmon and yellow, No. 18; flat, cut 21x32, 22x34, 28x34, and 34x44 ins.; the grain to run the 21-inch way on the 21x32-inch size. Min. order, one color, 5,000 lbs.

Old Dominion Paper Co. ..... 23.747c

**50% White Glazed Manifold**

No. 85—50,000 lbs., No. 16; flat, cut

28x34 ins.; the grain to run the 28-inch way. Min. order 20,000 lbs.
Barton, Duer & Koch Paper Co. 27.00c

### Chemical Wood Bond, White and Colored

No. 102—600,000 lbs., white, No. 40; flat, cut any size, min. width 21 ins.; max. width 38 ins.

No. 103—50,000 lbs., blue, No. 32; flat, cut 32x42 ins.

### 25% Bond, White and Colored

No. 105—100,000 lbs., white, No. 26; flat, cut any size, min. width 21 ins.; max. width 48 ins.
Aetna Paper Co. ..... 17.37c
Collins Mfg. Co. ..... 17.19c

No. 106—500,000 lbs., white, No. 32; flat, cut any size min. width 21 ins., max. width 48 ins.
Aetna Paper Co. ..... 13.97c
Collins Mfg. Co. ..... 13.98c

No. 109—200,000 lbs.; white, No. 40; flat, cut any size, min. width 21 ins.; max. width 48 ins.
Aetna Paper Co. ..... 13.03c

No. 110—20,000 lbs., yellow, No. 26; flat, cut 34x44 ins., min. order, 5,000 lbs.
Aetna Paper Co. ..... 18.17c
Collins Mfg. Co. ..... 17.92c

No. 111—150,000 lbs., blue, buff, cherry, green, pink, salmon and yellow, No. 32; flat, cut any size, min. width 21 ins., max. width 48 ins.
Aetna Paper Co. ..... 14.73c
Collins Mfg. Co. ..... 14.58c

No. 113—100,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 40, flat, cut any size, min. width 21 ins., max. width 48 ins.
Aetna Paper Co. ..... 13.63c

### Chemical Wood White Ledger

No. 150—50,000 lbs., No. 48, flat, cut any size, min. width 17 ins., max. width 48 ins.

No. 151—100,000 lbs., No. 64, flat, cut any size, min. width 17 ins., max. width 48 ins.

No. 153—300,000 lbs., No. 88, flat, cut any size, min. width 17 ins., max. width 48 ins.

### 25% Ledger, White and Colored

No. 154—150,000 lbs., white, No. 48; flat, cut 22x34, 24x38, 28x34, 32x42, 34x44 and 38x48 ins. Min. order, one substance, 5,000 lbs.
Aetna Paper Co. ..... 13.97c
Collins Mfg. Co. ..... 14.39c

No. 155—150,000 lbs., white, No. 64; flat, cut 22x34, 24x38, 28x34, 32x42, 34x44 and 38x48 ins. Min. order, 5,000 lbs.
Aetna Paper Co. ..... 14.07c
Collins Mfg. Co. ..... 14.39c

No. 156—150,000 lbs., white, No. 88, flat, cut 22x34, 24x38, 28x34, 32x42, 34x44 and 38x48 ins. Min. order 5,000 lbs.
Aetna Paper Co. ..... 14.37c
Collins Mfg. Co. ..... 14.39c

No. 157—50,000 lbs., blue, buff, cherry, green, pink, salmon, and yellow, No. 64, flat, cut 24x38, 28x34 and 34x44 ins. Min. order, one substance, one color, 5,000 lbs.
Aetna Paper Co. ..... 14.67c
Collins Mfg. Co. ..... 14.99c

No. 158—100,000 lbs., blue, buff, cherry, green, pink, salmon and yellow, No. 88, flat, cut 24x38, 28x34, 34x44 and 38x48 ins. Min. order, one substance, one color, 5,000 lbs.
Aetna Paper Co. ..... 14.97c
Collins Mfg. Co. ..... 14.99c

### 100% White Ledger

No. 177—100,000 lbs., No. 64; flat, cut 24x38, 28x34, 32x42, 34x44 and 38x48 ins. Min. order, 5,000 lbs.
R. P. Andrews Paper Co. ... (50,000 lbs. only) 28.13c
Barton, Duer & Koch Paper Co. (50,000 lbs. only) 27.50c

### Chemical Wood White and Colored Index

No. 183—200,000 lbs., white, 25½x30½—220 and 280; flat, cut 34x44 ins., with projecting colored-paper marker between each 100 sheets. Min. order, one weight, 10,000 lbs.
Whitaker Paper Co. ..... (100,000 lbs. only) 7.67c

No. 184—50,000 lbs., white, 25½x30½—340; flat, cut 34x44 ins., with projecting colored-paper marker between each 100 sheets. Min. order 10,000 lbs.

### 50% Index, White and Colored

No. 189—300,000 lbs., white, 25½x30½—220 and 280; flat, cut 24x38, 28x34, 32x42, 34x44 and 38x48 ins., with projecting colored-paper marker between each 100 sheets. Min. order, one weight, 10,000 lbs.
Barton, Duer & Koch Paper Co. 15.57c
Walker, Goulard, Plehn Co. ..
(10,000 lbs.) 15.65c
(20,000 lbs.) 15.55c
(30,000 lbs.) 15.50c
(40,000 lbs. and up) 15.45c

No. 190—50,000 lbs., white, 25½x30½—340; flat, cut 24x38, 28x34, 32x42, 34x44 and 38x48 ins., with projecting colored-paper marker between each 100 sheets. Min. order, 10,000 lbs.
Barton, Duer & Koch Paper Co. 15.97c
Walker, Goulard, Plehn Co. ..
(10,000 lbs.) 16.55c
(20,000 lbs.) 16.45c
(30,000 lbs.) 16.40c
(40,000 lbs. and up) 16.35c

No. 191—150,000 lbs., blue, buff, cherry, fawn, green, pink, salmon and yellow, 25½x30½—220 and 280; flat, cut 24x38, 28x34, 34x44 and 38x48 ins., with projecting colored-paper marker between each 100 sheets. Min. order, one color, one weight. 5,000 lbs.
Barton, Duer & Koch Paper Co. 16.57c
Walker, Goulard, Plehn Co. ..
(10,000 lbs.) 16.65c
(20,000 lbs.) 16.45c
(30,000 lbs.) 16.35c
(40,000 lbs. and up) 16.25c

### 100% White Index

No. 196—40,000 lbs., 25½x30½—250 flat, cut 20½x30½ and 34x44 ins.
R. P. Andrews Paper Co. ... 27.16c
Barton, Duer & Koch Paper Co. 27.00c

### Coated Cover, White and Colored

No. 201—50,000 lbs., white, 20x26—130; flat, cut 26½x41, 32x42 and 34x44 ins., the grain to run lengthwise of the sheet. Min. order, 5,000 lbs.

### Antique-Finish Cover, White and Colored

No. 203—50,000 lbs., antique; white, blue, buff, dawn, quaker drab, terra cotta, gray, brown, green, gobelin blue, granite, tea and yellow; flat, cut 25¼x39—95, with projecting colored-paper marker between each 500 sheets. Min. order, one color, 5,000 lbs.
R. P. Andrews Paper Co. ..... 9.03c
Whitaker Paper Co. ..... 8.40c

### 50% Antique-Finish Cover, Deckle Edge

No. 204—5,000 lbs., buff, 20x26—130, flat, cut 26x40, with projecting colored-paper markers between each 500 sheets. Min. order, 5,000 lbs.
R. P. Andrews Paper Co. .... 14.73c
Whitaker Paper Co. ..... 18.32c

### 50% Laid Cover, Colored

No. 206—60,000 lbs., blue, cream white, gray and green, 20x26—130 and 200; flat, cut 25¼x39 and 28x41 ins., with projecting colored-paper marker between each 500 sheets. Min. order, one color, 2,000 lbs.
R. P. Andrews Paper Co. ..... 14.73c

### Wood Manila

No. 208—50,000 lbs., 24x36—80 and 100; flat, cut 25x38, 32x42 and 40x52½ ins., with projecting colored-paper marker between each 500 sheets.

No. 209—50,000 lbs., 24x36—80 and 100; rolls, 21 ins. wide (3-inch fiber cores).

No. 210—50,000 lbs., 24x36—120; rolls, 18-ins. diameter, 4¾, 5¾, and 7½ ins. wide, wound on wooden plugs, 1½-in. hole.
Whitaker Paper Co. .....
(4¾ inch rolls) 5.905c
(5¾ and 7½ inch rolls) 5.655c

### Drumhead Manila

No. 215—40,000 lbs., 24x36—280; flat, cut 32x42 ins. Min. order. 5,000 lbs.
Mudge Paper Co. ..... 17.50c
Perkins-Goodwin Co. ..... 19.50c

### No. 2 Kraft

No. 217—100,000 lbs., 24x36—80 to 160; flat, cut any size, in wrapped bundles.

No. 218—150,000 lbs., 24x36—80 to 160; cut any size, folded (25 sheets per fold) in wrapped bundles.

No. 219—50,000 lbs., 24x36—80 to 160; rolls, min. width 9 ins., max. width 48 ins., wound on wooden plugs, 1½-inch hole, or on 3-inch fiber cores as may be specified.

### Desk Blotting, Colored

No. 255—40,000 lbs., moss green, flat, 19x24—200; in wrapped bundles. Min. order 5,000 lbs.
R. P. Andrews Paper Co. ... 9.03c
Whitaker Paper Co. ..... 9.50c
Mudge Paper Co. ..... 9.98c
Stanford Paper Co. ..... 9.50c
Barton, Duer & Koch Paper Co. 10.00c
Old Dominion Paper Co. ..... 9.939c
Central Ohio Paper Co. ..... 9.50c
Cauthorne Paper Co. ..... 10.00c
Walker, Goulard, Plehn Co. ... 10.00c

### High-Finish Chemical Wood Manila Tag

No. 271—50,000 lbs., 24x36—280; flat, cut any size, min. width 24 ins., max. width 38 ins.
Paper Corp. of U. S. ..... 9.50c

### Jute Tag

No. 280—50,000 lbs., 22½x28½—200 and 280; flat, cut 28x38 and 34x44 ins. Min. order, one weight, 10,000 lbs.
Mudge Paper Co. ..... 10.25c
Paper Corp. of U. S. ..... 11.50c

### Railroad Board, White and Colored

No. 302—50,000 sheets; white, flat, 22x34 ins., 8-ply, each 100 sheets fully banded. Min. order 5,000 sheets.
Stanford Paper Co. ..... $49.46 per M sheets
Barton, Duer & Koch Paper Co. 51.00c
Old Dominion Paper Co. ..... 48.958c

### Wood Cardboard, Colored

No. 306—100,000 lbs., buff, 22½x28½—150; rolls, 20 ins. wide (6-inch iron cores).

No. 308—50,000 lbs., melon, 22½x28½—184; flat, 20x30 ins., in wrapped bundles with projecting colored-paper marker between each 100 sheets.

No. 309—100,000 lbs., blue, buff, gray, green, melon, pink and yellow; 22½x28½—184; rolls, 20 inches wide (6-inch iron cores).

### United States Postal Card Paper

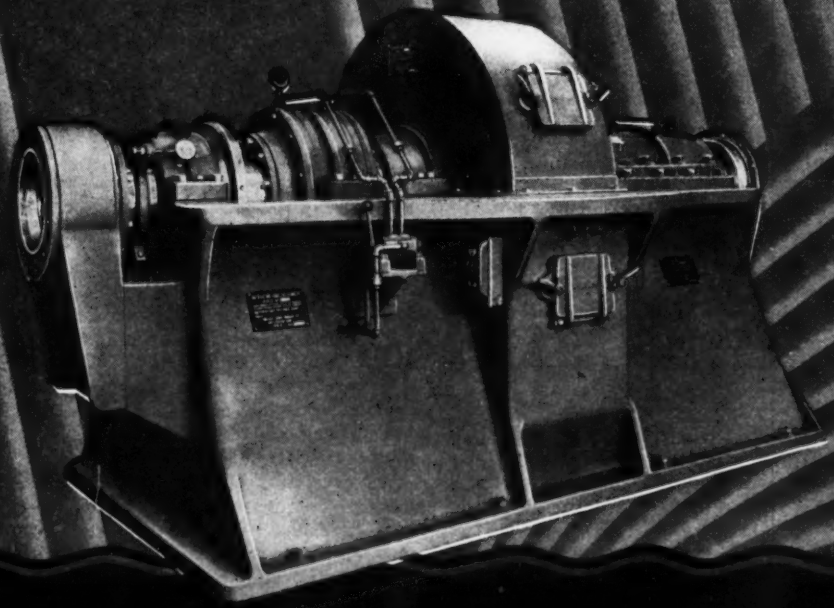
No. 325—1,000,000 lbs., 22½x28½—188; rolls, 22 ins. wide, 30 ins. in diameter and 33 ins. wide, 36 ins. in diameter (6-inch iron cores).
R. P. Andrews Paper Co. .... (1,500,000 lbs. total—lots 325, 326 and 327) 6.17c
Whitaker Paper Co. .....

*(Continued on page 24)*

# Continuous

BEATING AND
REFINING FOR
EVERY PAPER
MAKING FIBER
by

Sutherland



A cleaning operation required frequent lifting of a basket of parts in and out of the tank.

A Reading Electric Hoist with unit construction provided a special solution without special engineering cost. The built-in trolley permitted easy movement. The rigid arm push button gives control of both motions. The D.C. motor and controller were also standard mechanisms.

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OVERHEAD TRAVELING CRANES

READING HOISTS

## PAPER BIDS OPEN

*(Continued from page 22)*

(1,500,000 lbs. total—lots 325, 326 and 327) 6.22c

No. 326—1,000,000 lbs., 22½x28½—188 rolls, 22 ins. wide, 30 ins. in diameter and 33 ins. wide, 36 ins. in diameter (6-inch iron cores).

R. P. Andrews Paper Co. ....
(1,500,000 lbs. total—lots 325, 326 and 327) 6.17c
Whitaker Paper Co. .....
(1,500,000 lbs. total—lots 325, 326 and 327) 6.22c

No. 327—1,000,000 lbs., 22½x28½—188; rolls, 22 ins. wide, 30 ins. in diameter, 33 ins. wide and 36 ins. in diameter (6-inch iron cores).

R. P. Andrews Paper Co. ....
(1,500,000 lbs. total—lots 325, 326 and 327) 6.17c
Whitaker Paper Co. .....
(1,500,000 lbs. total—lots 325, 326 and 327) 6.22c

### News Board

No. 360—100,000 lbs., 26x38—100, flat, cut any size, min. 21x32 ins., max. 40x52½ ins. (to be trimmed square on four sides).

### Binder's Board, No. 1 Quality

No. 366—200,000 lbs.; flat, to trim 25x30 ins., No. 16, 18, 20, 25, 30 and 40.

Mathers-Lamm Paper Co. .... 4.546c

No. 367—50,000 lbs. 25¾x30¾ ins., No. 12 and 20; flat, to trim 34x44 ins.

### Binder's Board, Best Quality

No. 368—20,000 lbs.; flat, to trim 20x30 ins. and 22x28 ins., Nos. 18, 20, 25, 30, 35, 40, and 45. Min. order, 5,000 lbs.

Consolidated Paper Co. ..... 5.87c

### Chestnut Cover Board

No. 369—120,000 lbs.; flat, to trim 25x30 ins., Nos. 17, 19, 21, 25, 31 and 41.

Mead Sales Co. .....
(60 pts. and up) 4.00c
(50 pts and up) 4.375c

No. 370—40,000 lbs., flat, to trim 25¾x37¾ ins., Nos. 16, 19, 24 and 31.

Mead Sales Co. .....
(60 pts. and up) 4.00c
(50 pts. and up) 4.375c

## Tells of Sealpower

A four-page bulletin, just issued by the Crocker-Wheeler Division of Joshua Hendy Iron Works, Ampere, N. J., describes the Company's Sealedpower motor. An exclusive design, the Sealedpower motor was developed for use in dusty locations, in places where there is excessive moisture, and for all applications where the conventional alternating-current, totally-enclosed, fan-cooled motor has been used in the past. It is available in sizes from 2 hp to 15 hp.

## Girvin in Plastics

Richard W. Girvin, for over eight years vice-president in charge of sales with the Willmark Research Corporation of New York city, and most recently with The Englander Company, Inc. has been appointed retail sales manager, Cellulosic Department of the International Plastic Corporation, Morristown, N. J.

## Study on Stock Preparation

The Technical Section of the Canadian Pulp and Paper Association has recently distributed to its membership copies of a comprehensive report on stock preparation. This report entitled, "Stock Preparation Monograph I" is the culmination of four years' study and research by a Sub-committee of the Board Committee of the above organization.

The sub-committee embarked on a program of plant scale research, in which equipment in regular use in a number of paperboard mills was studied. Procedures were devised by which stock could be treated in operating equipment such as pulpers, beaters, jordans and high speed refiners. The effects produced on the various properties of the pulps and the power consumption were studied.

Quite exhaustive work was first carried out on a mixture of 68 per cent unbleached sulphite and 32 per cent groundwood. These studies were repeated using bleached sulphite pulp in a larger number of mills. Care was taken to ensure that identical pulp was used by all the mills. The method of carrying out the work was planned, so that variables not connected with the subjects under study, were eliminated to as great an extent as possible.

In addition to the text, the monograph contains twenty-five graphs, fourteen tables, some forty odd photomicrographs and an appendix consisting of a bibliography of relevant literature covering the past twenty years.

This valuable report is available at $3.00 per copy. Orders should be addressed to Douglas Jones, Secretary-Engineer, Technical Section, Canadian Pulp and Paper Association, 3420 University Street, Montreal 2, P.Q., Canada.

## Nickle Moves to New York

Hugh D. Nickle who for the past eight years has been associated with Combustion Engineering Corporation, Ltd., Montreal, as a mechanical engineer specializing in equipment for the pulp and paper industry in Canada has been transferred to the New York Office of Combustion Engineering Company, Inc. He will devote his time to sales work and other contacts in connection with the installation of C-E Chemical Recovery Units in pulp and paper mills in the United States. In this work he will be associated with A. L. Hamm who has long been identified with the design and installation of such units and is widely known as an authority in this field.

# RUST STEALS MONEY

## Stop it!

Those millions of dollars stolen annually by rust's scaly fingers . . . why let them be your dollars? Stop the rust thief in your plant!

Sinclair preventives that helped solve the war's tremendous rust problems are available to end *your* rust troubles. Whether it be protection for

- machinery in regular operation,
- machinery in short-time or extended storage,
- machinery in transit,
- piping, shafting, etc., exposed to corrosion,

there's a Sinclair *war-tested* preventive that *stops* rust . . . extends equipment durability . . . lengthens the life of metal installations.

Sinclair rust preventives are easily applied, easily removed — and they protect both internal and external surfaces.

Write us for information about application of Sinclair Opaline* RP Oils, and Sinclair Rust-O-Lene* rust preventives to your problems.

*Reg. U. S. Pat. Off.

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**Paper winders of every size and type will develop their top capacity with fewer breaks and control troubles when equipped with G-E winder drives.**

**From the simplest a-c drive to the newest amplidyne-regulated d-c drive with regenerative tension control, these G-E equipments are based on long-term, practical experience with paper-mill operations. Close liaison with machine builders assures a well-matched combination of winder, gear-reduction unit, motor, and control.**

**G-E application engineers, who know the problems of paper-mill electrification, will be glad to work with you or your consulting engineers on this or any other paper-mill drive problem. *Apparatus Dept., General Electric Company, Schenectady 5, New York.***

**FOR TOP-SPEED WINDING WITHOUT A BREAK**

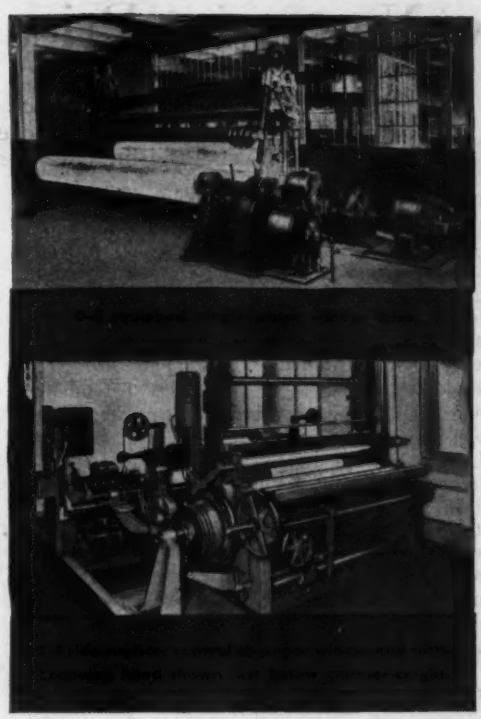
**D-C WINDER DRIVE WITH regenerative tension control**

**This modern type of winder drive speeds output and assures a roll of uniform density from start to finish. Paper tension is held constant at all times, including the acceleration and deceleration periods.**

**D-c, adjustable-voltage drives**—For single- or double-motor winders where tension-control can be adequately maintained by mechanical means, G.E. furnishes complete drives from 20 to 400 hp, including motor-generator set, d-c motors, and 50-division generator-field control. A factory-assembled control panel includes all the necessary contactors, overload relays, and resistors.

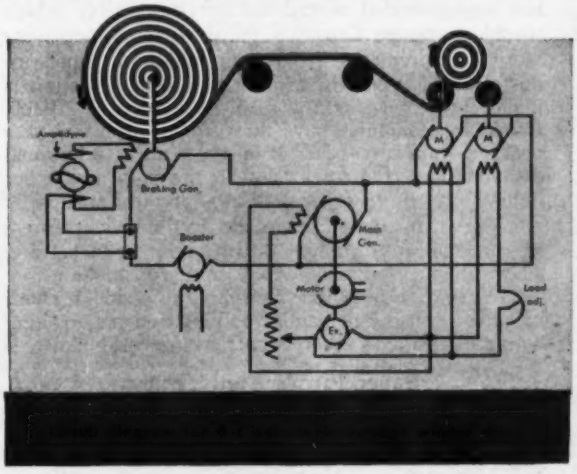
**A-c wound-rotor drives**—on winders where speed control need not be critical over a wide range, G.E. supplies drives powered by a-c wound-rotor motors, with simple, long-lasting drum-type controllers.

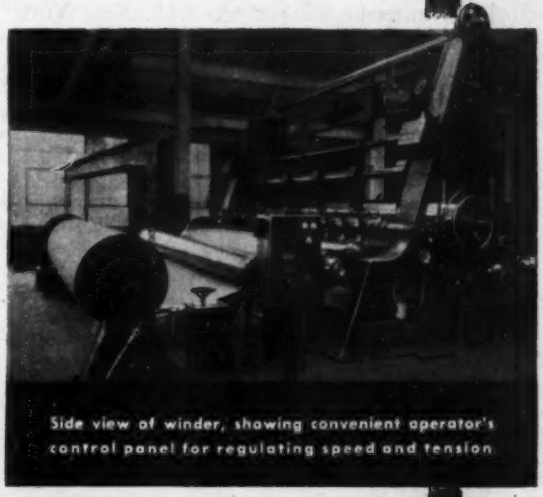
**Electronic side-register control for winders, slitters**—A photo-electric scanning head directed at the edge of the sheet detects any variation in position. A G-E amplidyne powers a motor which corrects the roll position (see photo at right).



**Tension can be adjusted precisely by a dial on the operator's panel. An amplidyne and booster-generator unit maintains stalled tension, aids smooth starts, and thus avoids paper breaks.**

**A factory-assembled main control panel, and a metal-enclosed operator's panel conveniently located, are included in the complete drive.**



Side view of winder, showing convenient operator's control panel for regulating speed and tension

GENERAL ELECTRIC

663-21-197

# New Newsprint Price Viewed as Corrective

## Canada Believes Increased Price of $6 Per Ton Will Check Trend of Shifting To Other and More Profitable Grades of Paper — Reports On War Prisoner Labor Situation — Other Mill News.

MONTREAL, Que., December 10, 1945—The rise of $6 per ton in the price of newsprint, announced by the OPA at Washington on December 7, did not come as a surprise here. It will be recalled that in the Montreal correspondence published in the PAPER TRADE JOURNAL on November 22 it was stated that a rise was expected to take effect on January 1 next, the increase then mentioned being $5 per ton.

For some time past there has been a tendency among newsprint companies here (as there has been to an even greater extent in the newsprint industry in the United States) to shift production to more profitable lines, and the feeling is that the new price will go a long way, as far as Canadian mills are concerned, to correct this tendency. The cost of nearly all elements entering into the production of newsprint has been rising steadily over a long period, thus narrowing the margin between costs and fixed selling prices, and a sample of the reaction in the trade to the OPA decision is the statement that the latest price increase "will go some way towards equalizing the increased costs of production." In the stock market the reaction has not been so conservative. The virtual certainty that the increase would be forthcoming has been at least a contributory factor in the wide upturn seen among "paper" stocks in recent weeks. The newsprint averages have pushed ahead until the present 1945 high, just attained, is some 66 points above the wartime high, and nearly 100 points above the level reached a year ago.

With the present price at $61, the increase will bring returns to $67 per ton f.o.b. New York, in New York funds, as compared with $67.50 per ton which Canadian mills received for their product in the pre-depression year of 1928. From that year onward the price declined each year until 1934, when it stood at $40 per ton. From 1936 to 1938 it rose to $50, at which level it remained through 1942. In each of the two years following OPA awarded a $4 per ton increase, and $3 in 1945, bringing the price to $61, U. S. funds. The following table shows the price range from 1923 to date:

(Delivered at New York)

| Year | $ | Year | $ |
|---|---|---|---|
| 1923 | $81.80 | 1934 | $40.00 |
| 1924 | 80.80 | 1935 | 40.00 |
| 1925 | 76.80 | 1936 | 41.00 |
| 1926 | 70.00 | 1937 | 42.50 |
| 1927 | 70.00 | 1938 | 50.00 |
| 1928 | 67.50 | 1939 | 50.00 |
| 1929 | 62.00 | 1940 | 50.00 |
| 1930 | 62.00 | 1941 | 50.00 |
| 1931 | 57.00 | 1942 | 50.00 |
| 1932 | 48.33 | 1943 | 64.66 |
| 1933 | 41.25 | 1944 | 58.00 |
| | | 1945 | 61.00 |

Assuming that the present rate of shipments of newsprint to the United States continues, and assuming also that the present 10% premium on U. S. funds continues, the new price will mean increased receipts amounting to some $16,000,000 in Canadian funds for Canadian mills during 1946, with consequent higher earnings and strengthening of balance sheet positions.

### German War Prisoners

In view of the employment of German war prisoners in lumber camps in Canada, to help out the shortage of men in cutting operations, considerable interest attaches to the news that Britain has decided to expatriate her Italian prisoners of war immediately to help Italy get back on her feet in agriculture, and to replace the Italians with German prisoners from Canada. The Italians have been mostly employed on farms in Britain. At the present time there are 34,000 German prisoners of war employed on various projects in Canada, of whom 9,000 are in lumber camps. Officially the attitude is that if Britain wants these German prisoners she is welcome to them. However, it will take some time to remove them to Britain, and no large scale movement is possible until well on in the spring.

### Newsprint Overseas

While shipments of newsprint to the United States in October, at 240,122 tons, were at the highest level of any month since October 1941, shipments overseas, at 37,191 tons, were somewhat under the figure of 38,372 shown for the like month last year. The decline contrasts with a substantial increase earlier in the year. The cumulative total for the first ten months of the year is shown at 437,787 tons, against 339,913 in the like period of last year.

Shipments to continental Europe were up sharply in October, amounting to 5,183 tons as against only 462 in the like month of last year. The United Kingdom took somewhat less than last year—5,261 against 6,059 — and there were moderate declines in shipments to South American countries. Australia showed an increase but New Zealand a decrease. The sharpest decline was in shipments to British India, Ceylon and Burma—from 4,196 to 1,419 tons.

### Reports on Forest Research

As a result of exhaustive research in forest problems and consultation with experts over a period of many months, the Canadian Geographical Society has recommended a national forestry policy which would guarantee Canada's ability to meet increasing world requirements from her pulp and paper industry. The report in which this recommendation is made, prepared for the Society by F. T. Webb, Canadian economist, says that Canada is in a better position than any other country to meet additional demands expected to develop in the pulp and paper industry resulting from new uses of pulp and paper discovered during the war, and has sufficient forest resources to meet the needs of her mills in perpetuity. The report recommends that future Canadian forestry expansion should be timed to coincide with upward trends of demands for pulp and paper along with the entry of other countries in world markets.

### Paper Firm's Anniversary

The completion of 75 years of service in the paper bag industry has just been celebrated by the firm of J. C. Wilson Limited, at a banquet in Montreal, with James C. Wilson presiding.

The business was founded December 6, 1870, by James C. Wilson, who is credited with originating the machine-made paper bag which replaced the old type hand-folded and pasted bag.

# The Economical Insulation

# PC FOAMGLAS

*You will find that PC Foamglas can be cut to fit around projections and openings right on the job, with ordinary tools. The big, strong, rigid slabs, conveniently packaged, can be handled and laid quickly and easily.*

IN the long run, you will find this cellular glass material the most economical insulation you can use. Why? Because the insulating properties of PC Foamglas are *permanent.*

While the insulating efficiency of many insulation materials deteriorates with age, PC Foamglas goes on year after year without loss of its original insulation value. Being glass, it is impervious to moisture, acid atmospheres, fumes, and vapors. It is verminproof, fireproof.

On roofs and equipment, in floors and walls, PC Foamglas has maintained predetermined temperature and humidity levels. It prevents condensation. Can you think of any other insulation that does all these things — permanently?

In all sorts of plants, all over the country, PC Foamglas is in increasing demand among men who are facing insulating problems. Freedom from repairs and replacement alone is prime proof of its ability to keep insulation costs down.

When you are considering insulation, be sure to check other materials against PC Foamglas. For complete information, just fill in and mail the convenient coupon. We shall be glad to forward free copies of the booklets you select. Pittsburgh Corning Corporation, 632 Duquesne Way, Pittsburgh 22, Pa.

**CHECK THESE PROPERTIES OF PC FOAMGLAS:**

1. **Permanent insulation**
2. **Vermin- and vaporproof**
3. **Fireproof**
4. **Waterproof**
5. **Light weight**
6. **Easy installation**
7. **Rigid structure**
8. **Economical**

**FIRST COST IS LAST COST**

*· Also manufacturers of PC Glass Blocks ·*

**This concrete floor, insulated with PC Foamglas, prevents heat travel from the room below. A concrete wearing floor will cover the PC Foamglas.**

**This re-roofing job includes permanent insulation. Roofers have found that they can safely recommend PC Foamglas to the most exacting plant managers for the toughest insulating jobs. PC Foamglas retains its original insulating value—indefinitely.**

**PC FOAMGLAS** *Waterproof Fireproof* **INSULATION**

T M REG U S PAT OFF

**Pittsburgh Corning Corporation**
**Room 808, 632 Duquesne Way**
**Pittsburgh 22, Pa.**

Dear Sirs:

Roofs_____ Walls_____ Floors_____

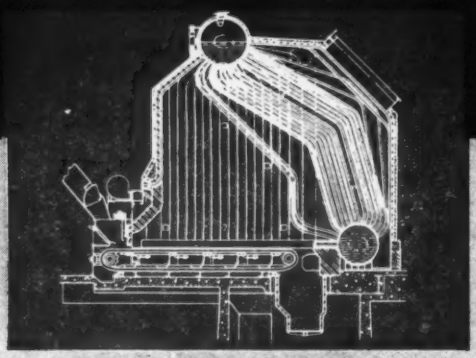
Please send along my *free* copies of the booklets I have checked. It is understood that I incur no obligation.

*Name*_____

*Address*_____

*City*_____ *State*_____

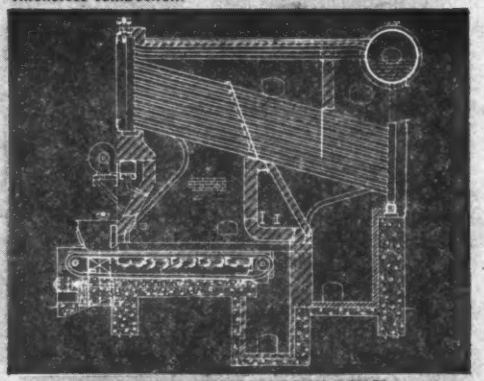
# *Use* B&W BOILERS *for* LOW COST STEAM



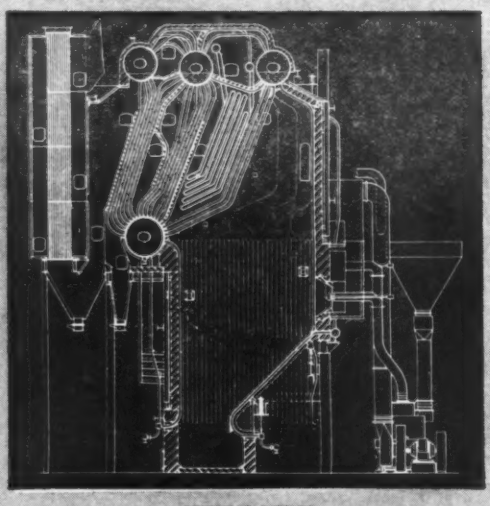
B&W INTEGRAL-FURNACE BOILER (CLASSES 9, 12, & 15)
This Integral-Furnace Boiler is available for firing with stokers or with oil, and in sizes ranging from 1353 to 6506 sq. ft. of heating surface. Having a water-cooled furnace of special design, this boiler provides the dependability of central-station boilers, with efficient and smokeless combustion.

## ANY CAPACITY • ANY PRESSURE
## ANY TEMPERATURE
## ANY SPACE • ANY FUEL

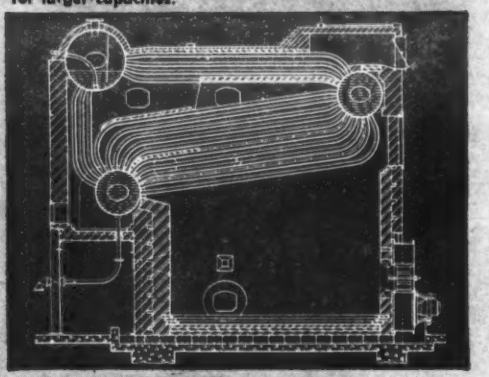
Highest standards of performance with respect to continuity of service, dependability, over-all operating efficiency, and greatest return on investment, are assured when any job of supplying steam requirements is entrusted to B&W Boilers. From the wide variety of time-tested, performance-proved B&W boiler designs, you can always be sure of getting units having the features necessary to provide economical steam generation under any combination of capacity, pressure, temperature, fuel and space requirements encountered in modern boiler installations. When you call on B&W for boilers, you call on a background of over 60 years' unsurpassed experience in designing, building steam generating equipment having a long record of highly satisfactory service wherever steam is used.



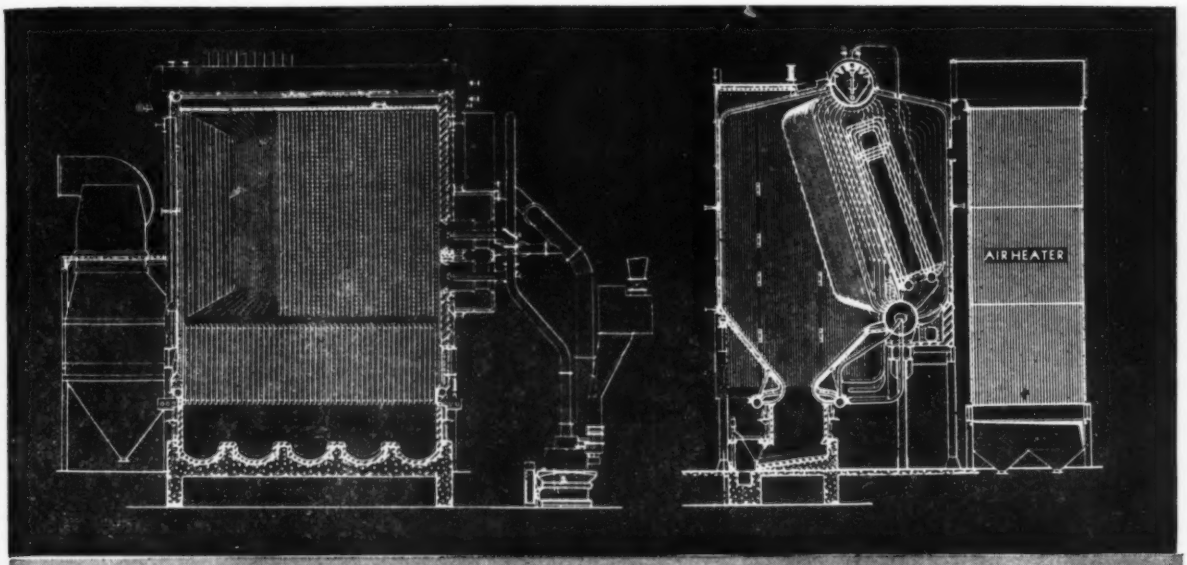
B&W DESIGN 32 CROSS-DRUM BOILER
This unit is widely used in small and medium-size power plants where refractory furnaces are suitable. It provides the advantages of the straight-tube, sectional-header construction used in B&W Cross-Drum Boilers designed for larger capacities.



STIRLING BOILER
The Stirling Boiler fully meets the requirements of modern operating conditions. It readily responds to sudden and heavy demands for steam, and delivers dry steam at relatively high ratings when operated with water having a high concentration of solids. May be fired with any fuel.

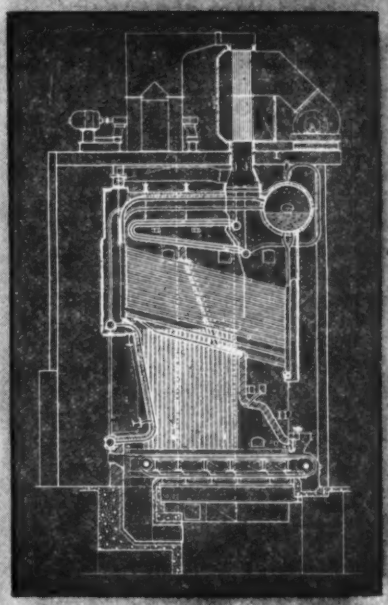


TYPE H STIRLING BOILER
A low-head moderate-pressure unit that is widely used in small industrial plants, institutions, hotels, office buildings and to meet other similar requirements. Available in capacities ranging from 1500 to 30,000 lb. steam per hr. and for firing with any fuel. The furnace, usually of refractory, provides the necessary degree of dependability.




**INTEGRAL-FURNACE BOILER**

**The Integral-Furnace Boiler is a completely co-ordinated unit built in wide range of steam capacities and for pressures and temperatures required by the most up-to-date and efficient prime movers. It is designed to burn pulverized solid fuels, oil, or gas, singly or in combination, thus utilizing at high combustion efficiency the least expensive fuel obtainable in any locality.**

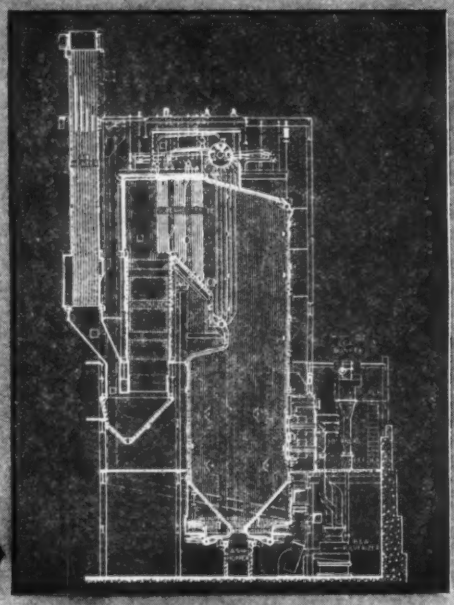


**B&W CROSS-DRUM BOILER**

**This straight-tube sectional-header boiler is noted for its dependability, long life, and ability to deliver dry steam at high ratings. Can be readily inspected and cleaned.**

**CENTRAL-STATION BOILERS**

**High-duty boilers for central-station service are available in several basic designs to meet the requirements of individual stations. The Radiant boiler unit illustrated is typical of some of the units now operating at high rates in utility plants.**



**Water-Tube Boilers, for Stationary Power Plants, for Marine Service . . . Water-Cooled Furnaces . . . Superheaters . . . Economizers . . . Air Heaters . . . Pulverized-Coal Equipment . . . Chain-Grate Stokers . . . Oil, Gas and Multifuel Burners . . . Seamless and Welded Tubes and Pipe . . . Refractories . . . Process Equipment.**

**BABCOCK & WILCOX**

THE BABCOCK & WILCOX CO.
85 LIBERTY STREET, NEW YORK 6, N.Y.

G-315T

# FINANCIAL NEWS

### New York Stock Exchange

High, Low and Last for Week Ending December 8, 1945

STOCKS

| | High | Low | Last |
|---|---|---|---|
| A. P. W. | 9⅜ | 9 | 9 |
| Armstrong Cork Co. | 55¾ | 54½ | 55¾ |
| Celotex Corp. | 25¼ | 21⅞ | 25⅛ |
| Celotex Corp., pf. | 21⅜ | 20⅝ | 21 |
| Certain-Teed Products Corp. | 16¾ | 15⅝ | 16½ |
| Certain-Teed Products Corp., pf. | 108½ | 108½ | 108½ |
| Champion Paper & Fibre Co. | 54½ | 51 | 54¾ |
| Champion Paper & Fibre Co., pf. | 111 | 111 | 111 |
| Congoleum Nairn Co. | 37 | 34½ | 35⅜ |
| Container Corp. of America | 39⅞ | 38¾ | 39¾ |
| Continental-Diamond Fibre Co. | 17⅜ | 16 | 16¾ |
| Crown-Zellerbach Co. | 30⅞ | 28¾ | 30¼ |
| Crown-Zellerbach Co., pf. | 110 | 107½ | 107½ |
| Dixie Cup Co. | 45½ | 44 | 44 |
| Dixie Cup Co.—A | 56 | 54½ | 55½ |
| Flintkote Co. | 37⅜ | 36½ | 37½ |
| Flintkote Co., pf. | 110 | 110 | 110 |
| Robert Gair | 10¾ | 9⅞ | 10⅛ |
| Robert Gair, pf. | 19⅝ | 19¼ | 19⅜ |
| International Paper Co. | 44¼ | 42⅜ | 42¾ |
| International Paper Co., pf. | 117½ | 115 | 115¾ |
| Johns-Manville Corp. | 144⅞ | 141¾ | 144⅞ |
| Johns-Manville Corp., pf. | 135 | 133 | 135 |
| Kimberly-Clark Corp. | 67 | 65¼ | 67 |
| Mac Andrews & Forbes | 36 | 35½ | 36 |
| Mac Andrews & Forbes, pf. | ... | ... | ... |
| Masonite Corp. | 63¾ | 61⅛ | 63¼ |
| Mead Corp. | 23 | 21¼ | 23 |
| Mead Corp., pf. A—6% | 105½ | 105½ | 105½ |
| Mead Corp., pf. B—5½% | 105¾ | 104 | 105½ |
| National Container Corp. | 32¾ | 27 | 31½ |
| Paraffine Companies, Inc. | 80⅛ | 78½ | 80⅛ |
| Paraffine Companies, Inc., pf. | ... | ... | ... |
| Rayonier, Inc. | 24½ | 22½ | 23¾ |
| Rayonier, Inc., pf. | 37½ | 37½ | 37½ |
| Ruberoid Co. | 47 | 46¾ | 47 |
| Scott Paper Co. | 56¾ | 55 | 56½ |
| Scott Paper Co., pf. | 111 | 110 | 110 |
| Sutherland Paper Co. | 42½ | 41 | 42½ |
| Union Bag & Paper Corp. | 26⅞ | 25½ | 26¾ |
| United Paperboard Co. | 13⅞ | 9⅞ | 13⅜ |
| U. S. Gypsum Co. | 113 | 104¾ | 113 |
| U. S. Gypsum Co., pf. | 195 | 195 | 195 |
| West Virginia Pulp & Paper Co. | 40 | 36 | 39½ |
| West Virginia Pulp & Paper Co., pf. | 112½ | 112½ | 112½ |

BONDS

| | | | |
|---|---|---|---|
| Abitibi Pulp & Paper Co. 5s '53 | 105 | 104 | 105 |
| Celotex Corp. 3¾s '55 | ... | ... | ... |
| Certain-Teed Products Corp. 5½s '53 | ... | ... | ... |
| Champion Paper & Fibre Co. 3s '65 | ... | ... | ... |
| International Paper Co. 6s '55 | ... | ... | ... |
| International Paper Co. 5s '47 | 102¾ | 102⅝ | 102¾ |
| Mead Corp. 3½s '53 | ... | ... | ... |

### New York Curb Exchange

High, Low and Last for Week Ending December 8, 1945

STOCKS

| | High | Low | Last |
|---|---|---|---|
| Great Northern Paper Co. | 46 | 43 | 46 |
| Hummel-Ross Fibre Corp. | 14⅜ | 11¾ | 14 |
| St. Regis Paper Co. | 12 | 11 | 11⅞ |
| St. Regis Paper Co., pf. | ... | ... | ... |
| Taggart Corp. | 11⅜ | 10⅛ | 11¼ |

BONDS

| | | | |
|---|---|---|---|
| American Writing Paper Co. 6s '61 | 102½ | 102 | 102½ |

## Warren Plans Shares on Market

WESTBROOK, Me., December 8, 1945—The 30,000 shares of no-par-value $4.50 cumulative preferred stock recently registered by the S. D. Warren Company with the Securities Exchange Commission is reported as going on sale during the week of December 10. It has also been reliably stated here that $2,500,000 in first closed mortgage 20 year 3¼ per cent sinking fund bonds will go on sale at the same time.

## Puget Sound Pays Dividends

Puget Sound Pulp & Timber Co. has declared dividends payable to stockholders of record December 17, 1945, consisting of the regular quarterly dividend of 30c a share on the preferred stock, payable January 1, 1946 and 25c a share on the common stock payable December 29, 1945.

## Dryden Co. Issues Report

MONTREAL, Que., December 10, 1945—The annual report of the Dryden Paper Co. for the year ended September 30, 1945, shows net profits before deduction for income tax to be $42,117, or a reduction of $110,000 below the figure for the previous year's operations, despite the fact that the tonnages of products sold were slightly in excess of sales for 1944. F. A. Sabbaton, the president, in his review, has these comments on the lowered profits:

"Whereas the Company is required to sell its output of papers in Canada at fixed ceiling prices and that these products are definitely allocated to particular consumers, both the labor and the materials necessary to produce this product have steadily advanced in cost. As an instance of this it might be noted that the pulpwood consumed by the mills in this fiscal year has cost the company $50,000 more than a similar amount of wood cost in the previous year, nothwithstanding the 27 per cent increase reported in the 1944 statement, and many of the labor and material items over which there are no effective controls have risen in a proportionate scale."

## Powell River Boosts Dividend

POWELL RIVER, B. C., December 6, 1945—Payment of a dividend of 30 cents per share has been authorized by the Powell River Company Ltd. This dividend is five cents higher than that paid for the previous quarter and was approved by directors of the company at a meeting in the Vancouver, B. C. head office of the company recently. This December 15 dividend will be paid to shareholders of Record No. 23 of this year.

The 25 cents per share dividend has been paid quarterly since March, but with prospects that earnings for the rest of this year and next will at least equal those of 1944, the company, officials said, felt justified in boosting the dividend from $1 a year to $1.20. Earnings last year amounted to $1.56 per share, which with tax refunds will come to $1.71. Of this $1 was paid in interest to shareholders.

Powell River Company's reconstruction and expansion program, of which the 1945 expenditure will have been $2,000,000, will involve several millions of dollars in the early post-war years. Unlike many forest industries, notably logging, Powell River Company now regards its manpower problem as past.

## Rayonier Profits Lower

Rayonier, Inc. for the six months to October 31, reports a net profit, after taxes and all charges, $758,785, equal to 14 cents a common share, compared with $961,085, or 35 cents a share, in 1944. Edward Bartsch, president, states that production was 5,280 tons under last year's. Operating results, particularly for the second quarter, were affected by two-day V-J shutdown, start-up expenses of Shelton mill, increased log costs and larger maintenance and repair expenditures, he explained.

## Hammermill Plans Bond Issue

Norman W. Wilson, president of the Hammermill Paper Company, has announced that a stockholders' meeting will be held at Erie, Pa. on December 10 to vote on a proposal to increase the indebtedness by $5,000,000.

*For those smaller jobs too . . .*

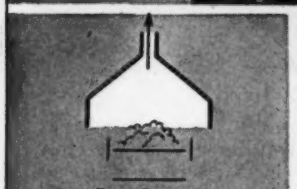
*there are the* **ROSS**

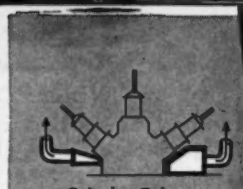
## AUXILIARY SYSTEMS

Although not always as evident as the major equipment items in a mill, there are numerous pieces of auxiliary equipment that contribute a large part of its operating efficiency.

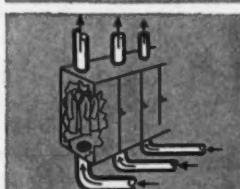
Properly cooling a motor, a generator or calender stack, guarding against dust or loose particles being carried on the sheet holding material in line on the conveyor tapes after the cutter—these are but a few of the steps taken by progressive mills to prevent loss of time, reduce broke, avoid damage to equipment and improve quality of product.

ROSS Auxiliary Systems to handle all such requirements are given the same care in design and construction as that which characterizes the famous ROSS Air Systems for major production facilities.


Dust System

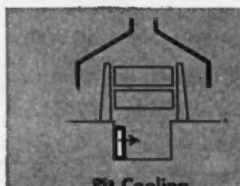

Grinder Exhaust

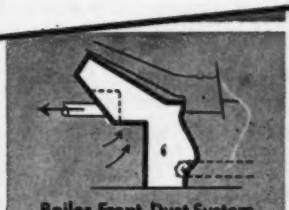
Hydrapulper System

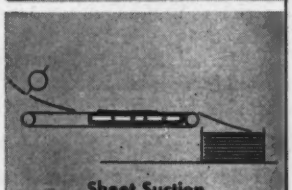

Locker Ventilation

Generator Cooling

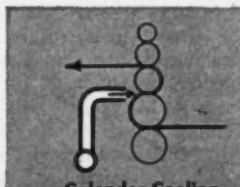
Trim Conveying

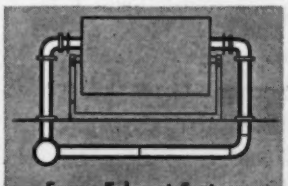

Pit Cooling

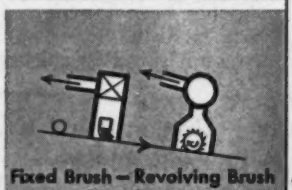

Boiler Front Dust System


Sheet Suction

Motor Cooling


Calender Cooling


Foam Exhaust System


Fixed Brush—Revolving Brush Dust Systems

ROSS SYSTEMS

**J. O. ROSS ENGINEERING CORP.**

DESIGNERS AND BUILDERS OF AIR PROCESSING SYSTEMS

350 MADISON AVE., NEW YORK 17, N. Y.

ROSS CONTROL OF AIR FOR MODERN INDUSTRY SYSTEMS

201 N. Wells St., Chicago-6 • 79 Milk St., Boston-9 • 12953 Greeley Ave., Detroit-3 • 1709 W. Eighth St., Los Angeles-14

ROSS ENGINEERING OF CANADA, LIMITED—Dominion Square Building, MONTREAL, P. Q.

CARRIER—ROSS ENGINEERING COMPANY, LIMITED, LONDON, ENGLAND

## Gair Plans $10,000,000 Savannah Mill

PORT WENTWORTH, Ga., December 9, 1945—A huge paper mill, costing in the neighborhood of $10,000,000, and employing around 6,000 persons will be erected in Savannah, provided sufficient industrial water is made available and the Savannah River channel is deepened to the proposed site at this point. In a telephonic interview with a local newspaper from his home in Ossining, N. Y., George Dyke, president of Robert Gair Company, Inc., indicated that only a few "ifs" are delaying the formal announcement, and that the upper harbor improvements and the water system were the principal "ifs."

Informed sources here said that plans for the gigantic mill are scheduled to be presented publicly at a formal hearing in the Superior Court room by the U. S. district engineer on the proposals to deepen the channel depths.

Mr. Dyke was quoted as saying that Ernest Rossiter, consulting engineer, is now in Savannah and would represent the company at the hearing. The latter is a result of a House rivers and harbors committee resolution adopted October 19 at the request of Representative Hugh Peterson.

Mr. Dyke went on to say that his company's interests in Savannah "date back some two years." The Robert Gair Company, he added, proposes to manufacture not only kraft-type paper, but also a vast quantity of white paper for such purposes as food containers, drinking cups, etc.

## Conley Heads Fraser Paper Sales

Aubrey Crabtree, President of Fraser Industries, Incorporated, has appointed James Good Conley as manager and John R. Cryan as assistant manager of paper sales. Mr. Conley has been associated with Fraser Industries Incorporated for the past fifteen years. Since 1931, until his recent appointment, he was western sales manager of the company with headquarters in the Chicago office at 111 West Washington Street.

Mr. Cryan joined Fraser in 1930. In 1935 he was transferred from Fraser's technical staff at Madawaska, Me., to the sales staff of Fraser Industries in New York. Subsequently, in 1943 he was named eastern sales manager.

Two new appointments have been made to the Fraser Industries sales staff. They are: Jack Barry, who has been transferred from the Technical Department at the Fraser mill, and E. F. Woodin, formerly of Rising Paper Company

## Gibson Joins Kraft Board Group

George B. Gibson has resigned from Union Bag & Paper Corporation, and has accepted as of January 1st, the new position of managing director of the Fourdrinier Kraft Board Institute, Inc. The Fourdrinier Kraft Board Institute is a corporation with a membership consisting of containerboard manufacturers whose production is predominantly Fourdrinier Kraft Board.

Mr. Gibson has had over twenty years in sales, operation and administration in the kraft division of the industry. Therefore, with his background and experience he is well qualified to direct and carry out the purposes and functions of the Institute. He will be located at the new offices of the Institute at 475 Fifth Ave., New York City, after the first of the year.

# Obituary

### Edward A. Robbins

HOLYOKE, Mass., December 9, 1945—Lieut.-Com. Edward A. Robbins, USNR, 55, who lived in Holyoke for a period in the 1930s when he was sales manager of the Collins Manufacturing company, died at St. Albans Naval hospital Thursday, December 6. The funeral was held from his home in Lenox on Saturday. He was long prominent in the paper business and had many friends in Holyoke. He was born in Lee, graduated from Princeton and served in the navy in the last war. He entered the navy at the outbreak of World War II and was only recently placed on terminal leave.

Before coming to the Collins office here, he was a salesman for Eaton, Crane and Pike company in Pittsfield. After leaving Collins he became vice-president of the Hurlburt Paper company of South Lee and later went to the Brightwater Paper Company of Adams. In 1939 he became president of the Lincoln Safe Deposit company of New York and in 1941 was named vice-president of the Arabol Manufacturing company of New York, maker of adhesives.

### William C. Jenkins

HOLYOKE, Mass., Dec. 2—William C. Jenkins, retired paper mill employe, died this week at the Holyoke hospital after a long illness. Born in Glasgow, Scotland, Feb. 18, 1870, he came to Holyoke 52 years ago. He had been employed at the Van Valkenburg Manufacturing company prior to his retirement in 1942. Previous to that, he had been employed for 37 years at the Hampden Glazed Paper company. He also worked for some time at the Riverside division of the American Writing Paper company.

### Morrell H. Hayman

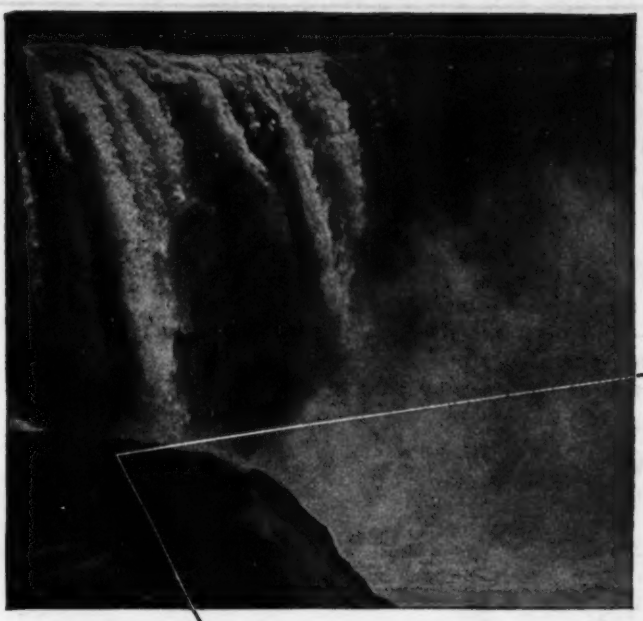
Morrell H. Hayman, for seventeen years St. Louis branch manager for Stein, Hall & Company, Inc., New York, died in Webster Groves, Mo., November 29 after a three-month illness. He was 57 years of age and had managed Stein-Hall's St. Louis office since September 1928. Surviving are his wife, Elizabeth Marsh Hayman, and a son.

## Maine Mill Workers Seek Raise

MADISON, Me., December 4, 1945—Fred W. Morris of Madison, official of the International Brotherhood of Pulp, Sulphite, and Paper Mill Workers, has announced that two A. F. of L. unions seeking 20 cents an hour additional pay for Maine paper mill workers, will commence negotiations in the state at the Hollingsworth and Whitney Company in Waterville and Madison December 14. Negotiators will meet with the Fraser Paper Company officials in Madawaska December 19, and from there they will confer with the Eastern Corporation management in Lincoln and Brewer

## Weldon Succeeds Pearson at Bangor

MILLINOCKET, Me., December 8, 1945—Frank Pearson, formerly assistant to the director of the Great Northern Paper Company in Bangor has been made director of the Woods Department of the St. Croix Paper Company in Woodland. Roy Weldon, previously in the engineering department at the Millinocket plant, will succeed Pearson in Bangor.



**SELF-LEVELING**

# FLOKOTE

## A COATING STARCH THAT SMOOTHS OUT LIKE WATER

**FLOKOTE is a high strength, self-leveling pigment binder. Coating mixes made with FLOKOTE—at the high solids needed for rapid production—will flow on uniformly . . . smooth out all applicator marks . . . and assure a higher calender finish.**

Machine Coaters are offered the high-production-speed and low-production-cost advantages of a starch binder capable of producing coating mixes of 40-45% solids for brush and up to 65% solids for machine application. They're offered coating mixes with a consistently low yield point . . . that behave as liquids rather than as soft solids . . . that flow well in the machine and over the paper . . . that smooth out as readily as water.

FLOKOTE mixes, with their consistently low yield point, even at high solids, offer the additional advantages of high water retention properties: The binder remains uniformly distributed throughout the pigment . . . dusting is held to a minimum at the calenders . . . less binder is used with the pigment — and the finish at the calenders is higher for all grades of papers.

FLOKOTE is a product of National, a basic refiner and processor of all types of starch — and a developer of new starch specialties. National is interested in solving difficult problems involved in paper coating, beater, tub and calender sizing. Inquiries are invited — NOW! *Offices:* 270 Madison Avenue, New York 16; Boston, Philadelphia, Chicago, Indianapolis, San Francisco and other principal cities.

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**STARCHES — AND SPECIALTIES WITH EASILY DEMONSTRATED SUPERIORITY**

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*Tubes and Parts*

**Plain carbon and corrosion- and heat-resisting alloy steel tubes and parts produced to close specifications from steel melted in electrical furnaces under rigid production control.**

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Also manufacturers of Heat- and Corrosion-resisting Bolts of (a) Alloy Cast Iron (b) Stainless Steel (c) Other high alloy steel.

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We rejoice in the return
of the old-time Yule,
the joy of the season's true meaning—
and heartily wish you a

*Merry Christmas and*
*a bright New Year*

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FOUNDERS—STEIN•HALL RESEARCH FELLOWSHIP AT THE INSTITUTE OF PAPER CHEMISTRY, APPLETON, WIS.

## OPA Ups Newsprint Six Dollars

WASHINGTON, D. C., December 7, 1945—Manufacturers' ceiling prices for newsprint have been increased $6 per ton, the Office of Price Administration announced today. This increase, although effective December 11, 1945, generally will not be applied by the industry until January 1, 1946, as most newsprint is sold on a yearly contract basis, with quarterly adjustments. Most deliveries up to the end of this year, consequently, will be at the old prices. Newspaper publishers are the principal buyers of newsprint. Prices for newspapers are exempt from price control.

This increase, the fourth since newsprint was put under price control in March 1942, was mandatory under the Price Control Act to lift earnings of the United States newsprint industry to its normal 1936-39 peacetime level. Increased production costs, principally for pulpwood and fuel, had pulled the industry's earnings below that level. The increase was recommended by the Newsprint Advisory Committee and has been allowed after a study of actual production costs for nine months of 1945 and estimated costs during the first quarter of 1946. Although the increase has been granted to maintain prices that are generally fair and equitable, the higher prices should also operate to check further decreases in United States newsprint production, which has been gradually declining for some years, OPA said.

The action will lift newsprint prices in the United States approximately $19,500,000 a year, as about 3,250,000 tons of newsprint are used annually in this country. The increase applies to all newsprint sold in the United States, including imports, which represent three-fourths of total consumption. Canada is the principal source of such imports. Before taking this action, OPA consulted with a committee of representative newspaper publishers. The committee indicated its approval of the increase.

The new ceiling price for standard newsprint paper delivered to 38 "port" cities will be $67 a ton. There are different ceilings for deliveries in ten specified zones of the country.

From January 1, 1938, until March 1, 1943, standard newsprint was $50 a ton port price. An increase of $4 a ton was granted on March 1, 1943, which was followed by a similar increase on September 1, 1943. A third increase, of $3 a ton, was allowed on March 29, 1945.

Members of the Newspaper Industry Advisory Committee this week reaffirmed their previous recommendation that all newsprint controls be lifted as of December 31, 1945 and also that a voluntary newsprint distribution plan be substituted after that date. Government officials asked how the small users would fare under such a voluntary plan. Members said that the voluntary plan to be worked out would give full consideration to small and large newsprint users.

Industry committee members, who represent a cross section of newspaper publishers in the United States, from the largest to the smallest, said that the voluntary plan could be worked out to treat all users of newsprint on an equitable basis. They declared that voluntary plans had been operative in the past to the satisfaction of all newsprint users during periods of tight supply and cited particularly the period after World War I when newsprint was distributed on a voluntary basis.

CPA officials emphasized, however, that there had been no improvement in the newsprint supply situation to date. An analysis of prospective supply and demand for the first six months of 1946 indicated that no substantial improvement could be looked for until the latter part of next year, they said.

The committee also recommended that it be relieved of its advisory duties in the event the newsprint controls are lifted.

## Package Institute Elects Slate

NEW YORK, N. Y., December 3, 1945—Re-elected to serve with Walton D. Lynch, President of the Packaging Institute, for another annual term were W. O. Brewer, manager, pharmaceutical sales, Calco Chemical Division, American Cyanamid Company, and George A. Mohlman, President, Package Machinery Company, both Vice-Presidents, according to announcement by William M. Bristol, Jr., Vice-President, Bristol-Myers Company, spokesman for the Institute's nominations committee.

New directors for the production division of the Institute are J. H. Maget, Merck & Company, and A. F. Stevenson, The Borden Company. New directors from the machinery division are Howard R. Stewart, Economic Machinery Company, and George W. von Hofe, New Jersey Machine Corporation. The Institute's supplies division will be represented on the new board by T. A. Torrence, Aluminum Company of America, and Henry W. Stevens, Benjamin C. Betner Company.

Mason T. Rogers, Dewey & Almy Chemical Company, and Lloyd I. Volckening, the Ivers-Lee Company, will head the supplies and production divisions respectively, of the Institute. Frank B. Fairbanks, Horix Manufacturing Company, was re-elected to head the machinery manufacturers division.

## COST ABSORPTION PLAN WORRIES MIDWEST

*(Continued from page 11)*

was in Washington this week appearing before the House committee considering freight forwarder legislation. Mr. Schwietert opposed special truck rates for forwarders and said that "joint rates should not be permitted and assembling and distribution rates should be open to all who utilize services of motor carries under like conditions." He added that those who ship the low-rated third and fourth class traffic are entitled to the same consideration as those who ship first and second class freight and that assembling and distribution rates made lower than local rates should be applicable to all classes of traffic to all communities.

### Professional Paper Group Program

J. T. Meek, executive secretary of the Illinois Federation of Retail Associations, will speak to the Chicago Professional Paper Group on the evening of December 17 in the dining rooms of the Chicago Bar Association. Mr. Meek, who represents some 40,000 merchants in both Springfield and Washington, will discuss the relationship of the present system of price and production controls to the economic conditions of tomorrow.

### Paperboard Association Reelects Officers

The national headquarters of the National Paperboard Association, located in Chicago, reported this week the reelection of its officers at the recent annual meeting held in New York City. W. Irving Osborne, Jr., Cornell Wood Products Company, was reelected president. Other officers are J. S. Miller, New Haven Pulp and Board Company, vice-president, H. S. Adler, secretary-treasurer and F. G. Becker, executive manager.

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## RESEARCH CORPORATION

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## Indiana Trade at Standstill

INDIANAPOLIS, Ind., December 3, 1945—Little change was seen last week in the local paper market. Most of the trade is getting ready for the annual inventory period and it is certain inventories will be lower this year than for a long time. Demand for all lines continued heavy last week and supplies in many items were strictly limited. The local trade would be much more satisfied if the large backlog of orders could be whittled down somewhat, but this seems impossible at the present time with demand as heavy as it is and deliveries low.

Distributors of roofing and building paper appear to have adequate stocks for all present purposes. They are somewhat concerned about the building situation. New construction has fallen off, not because there is not a lot to be done, but because of lack of building materials and labor. Local distributors say they are able to take care of a normal amount of construction, but due to brick and lumber shortages and the labor situation, they are unable to sell to their capacity of delivery.

Newsprint demand showed an increase last week. Due to the proximity of the Christmas holidays, domestic advertising has begun to increase and will show further increases for the next two weeks. Prices are at ceiling levels and virtually all the papers in the central part of the state are taking up to their quotas.

Paper box makers and manufacturers of all other containers say the demand is far beyond their ability to make deliveries. In spite of the fact that hundreds of soldiers in this area are being discharged, the converters and box manufacturers are finding it difficult to get an adequate supply of labor. The main want is for common labor.

Wrapping paper and bag demand continued to show an increase and stocks are low—too low to enter the Christmas season.

Mill demand for waste paper continued heavy with collections here none too good. Prices were at ceiling. The same situation prevailed in the rag market.

## Carpenter Takes Twin-Cities Firms

MINNEAPOLIS, Minn., December 3, 1945—Two of the Northwest's oldest and largest wholesale paper houses, the Stilwell-Minneapolis Paper Co. of Minneapolis and E. J. Stilwell Paper Co. of St. Paul, have been purchased by the Carpenter Paper Company of Omaha, in Minneapolis November 28 it was announced by their presidents, I. W. Carpenter, Jr., of Omaha and Eugene C. Prewitt, head of the Twin-Cities companies.

Operations of the Minneapolis and St. Paul houses will be continued and expanded by Carpenter Paper Company, with their present staffs of officers and employes in charge, headed by Mr. Prewitt as Twin-Cities manager, Mr. Carpenter said.

Stilwell-Minneapolis Paper Co., now located at 400 Fifth street south, was founded in 1889, while E. J. Stilwell Paper Co., 750 Pelham boulevard, St. Paul, was established in 1916.

## Fred Webster Retires

HOLYOKE, Mass., December 2, 1945—Fred Webster, for many years a resident of Springfield while associated with the American Writing Paper corporation, as advertising manager, retired December 1 from his position with the International Paper company in New York. He will make his home in California.

## Gordon Retires from Oxford

Charles A. Gordon, executive vice-president of Oxford Paper Company, will retire December 31, after 27 years of service with Oxford. He will continue as a director and member of the executive committee.

Mr. Gordon joined the Oxford Paper Company in 1918 as assistant to the president and in 1921 he was made vice-president and a director. In 1933 he was appointed first vice-president and in 1943 was advanced to the position of executive vice-president.

Rex W. Hovey, now vice-president in charge of manufacturing, will become the vice-president of the company. Mr. Hovey, entering his 20th year with Oxford, started as general manager of the Nashwaak Pulp and Paper Company, was transferred to the New York office of the company in 1928 as technical director and in 1932 became vice-president.

## Hummel-Ross Licenses Container Corp.

HOPEWELL, Va., December 10, 1945—Fred Hummel, President of the Hummel-Ross Fibre Corporation, has announced licensing of the Container Corporation of America under company's patents on the Sale double flow box. The Sale double flow box is a device invented by John W. Sale, vice-president and general manager of the Hummel-Ross corporation. This device lays a secondary layer of stock on the base web of stock on a Fourdrinier machine.

By the use of this device, secondary materials can be used as either top or base sheet. Different colors can be used in the top and the base of the sheet. Either side of the sheet can be sized.

## Ciba Salesmen Return

The Ciba Company in New York City has welcomed back Major Clement O. Stevenson, Staff Sergeant Robert L. Horney, and Lieutenant Chester M. Kopatch. They entered the service in 1942 and have recently been released from the Army and will resume their former positions as salesmen for Ciba Company, Inc. Major Stevenson was awarded both the Bronze and Silver Stars for heroism in battle. He and Sergeant Horney are connected with the Southern Branch Office of the Ciba Company with headquarters at Charlotte, N. C. Lieutenant Kopatch will return to the New England Branch Office located at Boston.

## Walker and O'Meara Back in Trade

Lt. E. Donald Walker of the Walker Goulard Plehn Company Inc., New York City, has returned to the States to take up his business career again after four and a half years in the Armed Forces. He enlisted in the Army in September 1941 and was sent to Panama. In 1943 he returned to New Orleans to take officer's training in the Transportation Corps and in February he left for Europe where he was attached to the 3rd Army. He will re-enter the export department of the company where he was engaged before the war.

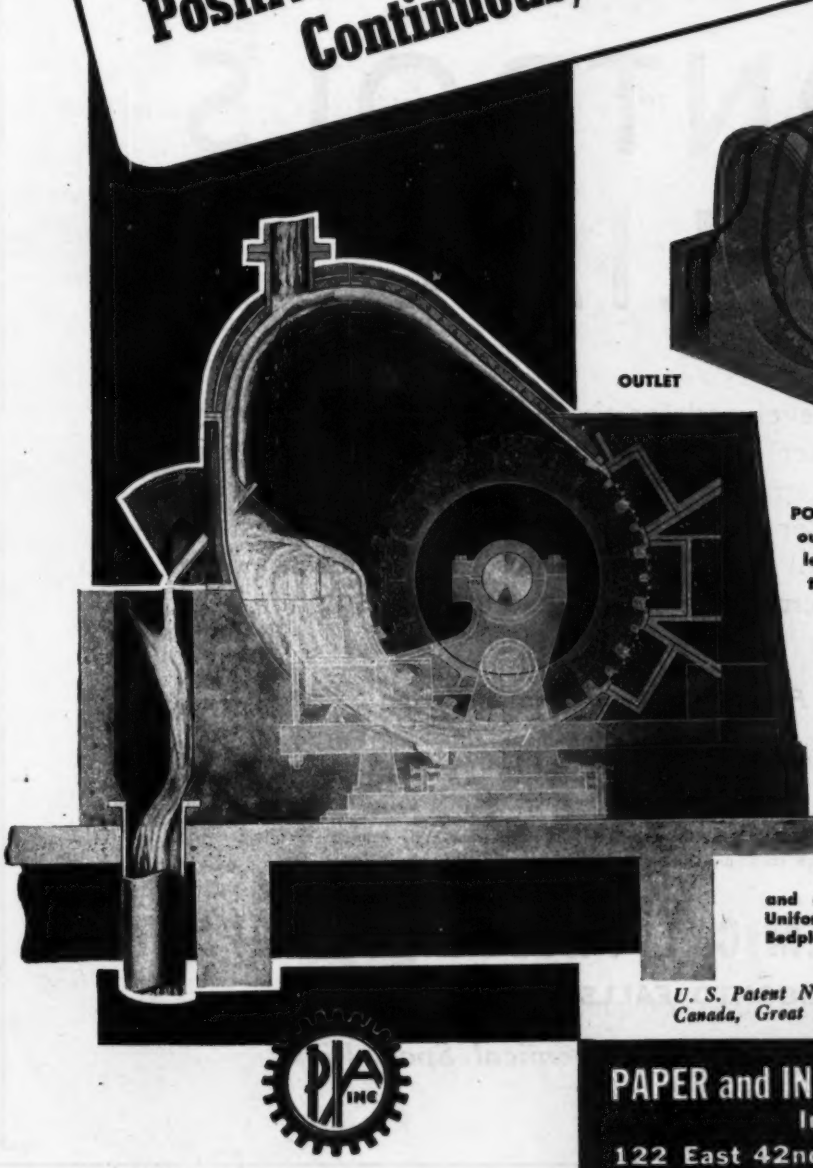
David O'Meara, Jr.—Chief Fire Controlman likewise has returned to the Walker Goulard Plehn Company after serving on the battleship "South Dakota."

## Timer Joins International Plastic

MORRISTOWN, N. J., December 3, 1945—Jules E. Timer for more than ten years with the Sherman Paper Products Corporation, Newton Upper Falls, Mass., has been made director of trade relations of the International Plastic Corporation.

# The ROLL-O-FINER

## Positive Fibre Treatment . . . Continuous, High Density Beating



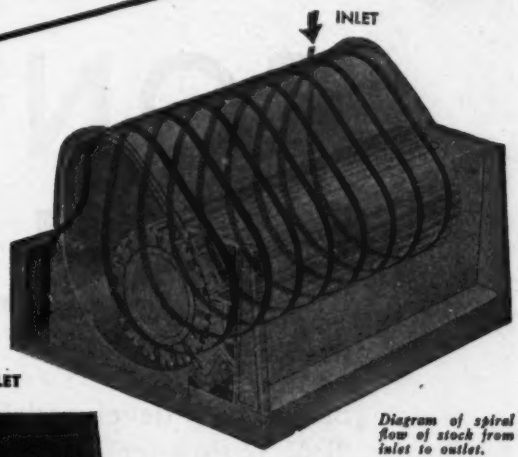



*Diagram of spiral flow of stock from inlet to outlet.*

**POSITIVE FIBRE TREATMENT** — The continuous, progressive, recycling of the full length of roll results in highly efficient treatment of all fibres.

**CONTINUOUS BEATING** — Ideal for continuous beating of all stocks. Streamline design of stock chamber insures good circulation of stock up to 8% consistency. Installed in series allows any desired amount of stock treatment. Basalt Lava stone treatment provides high strength.

**ADVANTAGES** —

Controlled pressure. Positive and uniform circulation. High consistencies. Uniform refining. Large capacity. Low power. Bedplate accessibility.

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***Manufacturers of Chemical Specialties***

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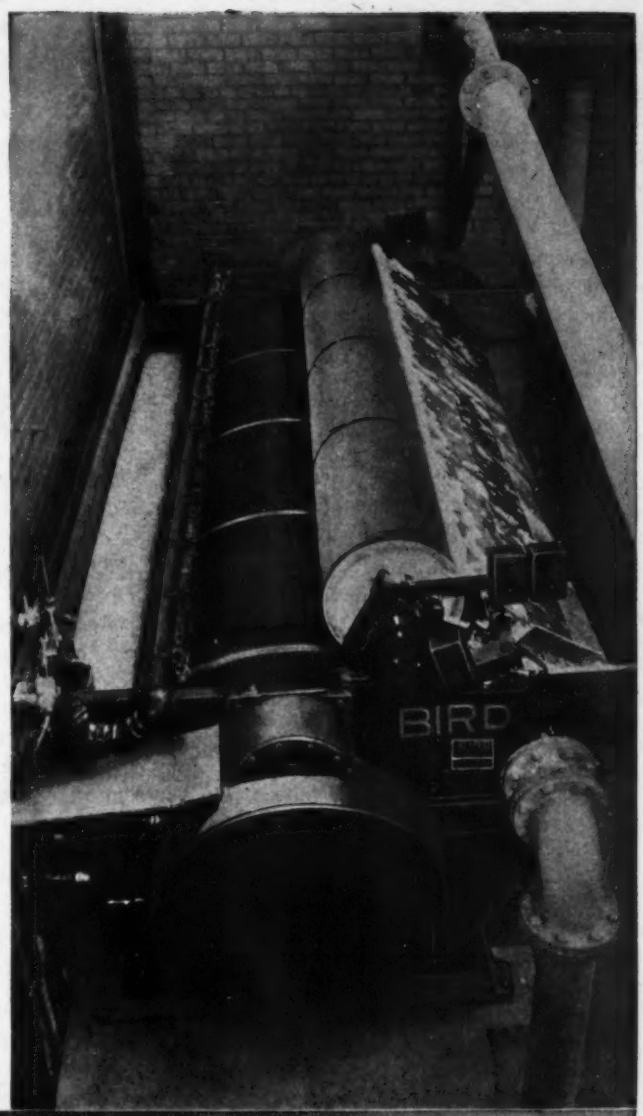

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TRADE JOURNAL
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W. L. Cook, Editor

## PULPWOOD SITUATION GOOD

Pulpwood seems assured in adequate supply from a long-range estimate, but the immediate situation is filled with some uncertainties. In its latest industry report the Department of Commerce stated that pulpwood is a much more vital problem to the pulp and paper industry than before the war. The level of pulpwood needs was raised as domestic production of pulp increased in the war years. Annual consumption of pulpwood in the last four years has averaged over 16,500,000 cords as compared with less than 11,000,000 cords in 1939. With prospects of pulpwood requirements continuing at this higher level, or probably increasing in near future years, the concerted attention of the industry must be placed squarely before the problem of timber supply and logging. The program of the War Activities Committee of the Pulpwood Consuming Industries is timely directing unemployed war production workers into the pulpwood industry. The program of the American Pulpwood Association on mechanization of woods operations, coupled with training of men in pulpwood production will probably prove to be highly important for a long time ahead.

Although later figures are not yet available, total receipts of pulpwood for the first eight months of 1945 were 11,651,000 cords, compared with 11,749,000 cords in 1944 and with 10,000,000 cords in 1943; the decline in 1945 below 1944 was 0.8%. Imports in this period aggregated, 401,000 cords in 1945, 1,089,000 cords in 1944, and 1,148,000 cords in 1943; the increase in imports in 1945 above 1944 was 5.6%. Total pulpwood supply was the most critical in the Lake States, with a decrease of 13.3% in the Appalachian region with a decrease of 8.5%, and in the Pacific Northwest where the wood supply decreased 3.6%. The total pulpwood supply was most favorable in the Northeast, which reported an increase of 11.9%, while the South reported an increase of 1.6%. Inventories in the above period were favorable in the Northeast which reported an increase of 9.2%, and unfavorable in the South with a decline of 39.1%; in the Appalachian area with a decline of 20.1%, in the Pacific Northwest with a decline of 17.9%, and in the Lake States with a decline of 17.0%.

From the latest reports the northeastern wood situation appears good, with both inventory and deliveries of Canadian wood satisfactory. The Department of Commerce reports that on the west coast mills report a moderately improved inventory position, partly accounted for by diversion of some logs from lumber mills affected by strikes. Logging operations on the Coast generally have not been affected by strikes. As previously anticipated, logging work performed by prisoners of war fell off substantially in September. Employment of prisoners assigned to logging operations, for private employers totaled 301,000 man-days in September, compared with 445,000 in August, 440,000 in July, and 458,000 in June. It is anticipated that prisoners will be kept on pulpwood operations as long as possible, perhaps into January, 1946. Observers noted, the Department stated, a modest slackening in wood cutting in the Lake States in October, with deliveries falling off due in part to the undertrained labor situation. In the South it is reported that the level of pulpwood output has been declining with mill inventories dropping, especially in the area west of the Mississippi. A few mills are reported to be facing possible shutdowns.

Latest reports from Canada state that the situation is favorable. It has been recommended that 1946 allocations to the United States be set at a minimum of 1,250,000 cords, the same minimum prevailing in 1945, 1944 and 1943. This 1945 minimum was increased by a supplementary allocation of 550,000 cords during the year. The Civilian Production Administration reported last week that it is possible that a similar supplementary quota will be granted by Canada in 1946, the exact quantity being determined at the close of the Canadian season. Reserves of pulpwood are apparently not sufficient to meet any decreased production caused by bad weather or other unfavorable factors existing in woods operations.

## PAPERBOARD SITUATION TIGHT

A definitely tighter supply situation has slowly developed in paperboard, no favorable prospect that the situation will materially improve until the middle of 1946. Over-all demand continues to be maintained at a very high level with indications that some specialties will be in greater demand in the immediate future. In this connection, late reports state that the anticipated large construction program would increase the demand for gypsum boards and liners. These liners would come mainly from the production of boxboard mills, thus reducing the supply of board available for boxes and cartons.

Production of paperboard totaled 6,722,000 tons in the nine months of 1945, compared with 6,739,000 tons in 1944, a decrease of 0.2%; the largest decrease was in tube stock, which declined 10.2%, in miscellaneous grades, which declined 8.8%; output of folding boxboard increased 5.9%, building board 3.1%.

## PAPER SALES DECLINE

The dollar sales of paper and paper products for September, as compiled by the Department of Commerce, showed a decline of 11% from August. Wholesalers' inventories showed an increase of 3%. The index of sales was 159.7 for January, 1945 and had declined to 134.0 in September; the index of inventories was 87.4 in Jan., 1945 and rose to 88.2 in Sept.

## Standards Bureau Studies MM Plan

A voluntary Simplified Practice Recommendation for Fine and Wrapping Paper based on the principles of the report of the committee on simplification of weights and standards of the National Paper Trade Association has been submitted to producers, distributors, and users for individual acceptance or comment, by the Division of Simplified Practice of the National Bureau of Standards. This proposal recommends that the weight of all fine and wrapping papers be computed on the basis of 1000 sheets of 1000 square inches, and provides a series of standard weight numbers for fine and wrapping papers, which are defined. Methods for calculating the weight in pounds per 1000 sheets of fine and wrapping paper are also given.

The proposed recommendation includes a review of the steps leading to the development of the project, the advantages of the proposal, including the reduction or simplification of basic weight numbers, general explanation of the simplified method of calculating weights of paper and proposed symbols for use with the method.

## Will Salvage Logging Claims

VANCOUVER, B. C., December 1, 1945—Marking a further experiment in the salvage of wastage in logging operations in British Columbia, the Powell River Company is planning to develop the use of salvage from the logging claims of the Pioneer Timber Company Limited, at Port McNeill. B. C. It is estimated that in this area there is a recovery value of from 7,000 to 10,000 feet of logs per acre. The present intention is to leave some of the lighter logging tackles in the woods and cold deck the smaller timbers which will run between six inches and 12 inches in diameter. These will be wired into bundles about 4,000 feet each, loaded on trucks, transported to the booming ground boomed up in ordinary booms and towed to Powell River.

## Production Ratio Report*

(Production as per cent of six-day capacity)

COMPARATIVE WEEKLY SUMMARIES

| Current Weeks—1945 | | Corresponding Weeks—1944 | |
|---|---|---|---|
| Oct. 27 | 95.8 | Oct. 28 | 91.3 |
| Nov. 3 | 97.5 | Nov. 4 | 93.0 |
| Nov. 10 | 97.0 | Nov. 11 | 91.3 |
| Nov. 17 | 96.4 | Nov. 18 | 90.3 |
| Nov. 24 | 91.4 | Nov. 25 | 87.2 |
| Dec. 1 | *97.5* | Dec. 2 | 91.0 |

COMPARATIVE MONTHLY SUMMARIES

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sep. | Oct. | Nov. | Dec. | Year Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1944 | 88.7 | 88.5 | 88.1 | 87.6 | 88.7 | 89.8 | 80.3 | 90.6 | 88.2 | 92.5 | 90.6 | 92.4 | 88.1 |
| 1945 | 86.7 | 89.4 | 90.2 | 88.1 | 89.8 | 91.2 | 80.8 | 88.6 | 90.2 | 95.9 | *95.5* | | |

COMPARATIVE YEARLY SUMMARIES

| | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 |
|---|---|---|---|---|---|---|---|---|
| Year to Date | 71.4 | 82.8 | 86.0 | 97.2 | 91.4 | 88.5 | 88.5 | *89.6* |
| Year Average | 71.5 | 83.4 | 85.6 | 97.4 | 90.4 | 87.8 | 88.1 | |

* Based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

PAPERBOARD OPERATING RATIOS†

| Current Weeks—1945 | | Corresponding Weeks—1944 | |
|---|---|---|---|
| Oct. 27 | 98 | Oct. 28 | 95 |
| Nov. 3 | 97 | Nov. 4 | 96 |
| Nov. 10 | 97 | Nov. 11 | 96 |
| Nov. 17 | 95 | Nov. 18 | 96 |
| Nov. 24 | 91 | Nov. 25 | 91 |
| Dec. 1 | *96* | Dec. 2 | 94 |

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sep. | Oct. | Nov. | Dec. | Year Avg. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1944 | 90 | 96 | 95 | 96 | 96 | 96 | 85 | 96 | 92 | 95 | 95 | 85 | 93 |
| 1945 | 91 | 95 | 97 | 97 | 96 | 96 | 86 | 90 | 91 | 97 | 95 | | |

† Per cents of operation based on "Inch-Hours" reported to the National Paperboard Assn.

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***The answers*** to these and other questions were found by Hooker's Technical Staff in a special study made during progressive chlorinations of various strength calcium hydroxide solutions. This study has been printed as Hooker Bulletin 234, "The Lime Chlorine System in the Preparation of Calcium Hypochlorite." It will prove an interesting and valuable addition to your files. A copy will be sent free when requested on your letterhead.

***This is but one of the Hooker Bulletins*** published in the interests of better pulp and paper making. Nor is the help of the Hooker Technical Staff available only in printed bulletins. The men who make up our Technical Staff have been working with the pulp and paper makers for many years and will be glad to consult with you on your particular problems and share with you their experience in chemicals and paper making.

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122 E. 42nd St., New York 17, N. Y.
Edited by R. G. Macdonald, Secretary

# Water Resistance of Shipping Containers*

## (Shower Method)

### TAPPI Suggested Method T 805 sm-45

The procedure described in this method is primarily intended for determining the resistance of containers to rain.

This test may be used in conjunction with other tests, such as the drop test, impact resistance test, drum test, etc., made prior to or after the shower test.

### Apparatus

1. *Test Room.* A test room or cabinet of water-resistant construction having an outlet drain in the bottom and covered with a false floor or wooden slats.

2. *Spray.* Spray nozzles located preferably 6 feet or more above the test containers and designed to break up the water into a heavy mist or very small droplets. The nozzle design shall be such that no large drops of water impinge on the test containers at a high velocity, and such as to allow the drops to fall vertically. The nozzles shall be of such size and so spaced that 2.5 ± 0.5 gallons of water per hour fall uniformly distributed on each square foot of floor area.

3. *Circulating System* (optional). A circulating system consisting of a strainer, pump, and necessary piping between the spray nozzles and water reservoir.

4. *Reservoir* (optional). An open-top reservoir, preferably equipped with an overflow to sewer, for the storage and conditioning of the spray water. Make-up water, regulated by a float control, should discharge into this tank.

5. *Temperature Control.* Thermostatically controlled heating means for maintaining the supply water in the sprays at the desired temperature.

*Note:* A suggested diagram for the above apparatus is shown in Fig. 1.

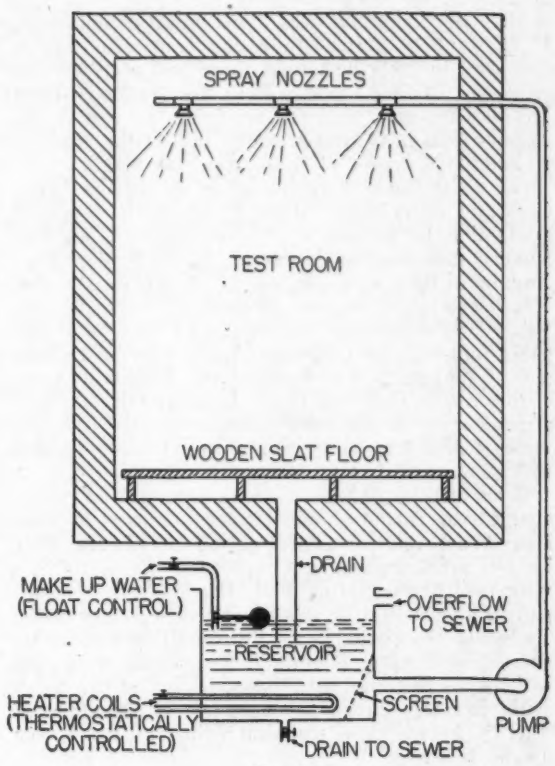


FIG. 1.
Schematic Diagram of Spray Room.

### Test Specimen

At least three test specimens shall be selected which are representative of the containers being tested and which shall be closed and sealed in their normal manner.

For some purposes (such as for checking leakage alone) the containers may be tested empty; otherwise the containers should be packed with the contents designed to be shipped therein, or with materials of similar character.

Glued flaps or liners, etc., shall have been dried and aged sufficiently to have reached their final normal condition before making the test.

### Procedure

Start the showers and operate until the entire spray system including the test room has reached a constant temperature of 73 ± 2° F., the temperature being maintained by thermostatic control. Place each container to be tested on the false floor in the test room in normal stacking position, or in any other position specifically called for in the test. Arrange the specimens so that the distance between adjacent containers shall not be less than 6 inches, or their height, whichever is greater.

Operate the showers continuously for the duration of the test. Unless otherwise specified, this shall be 7 days (168 hours).

Immediately after the conclusion of the shower test, inspect the containers or subject them to any subsequent tests that are to be made.

*This method is suggested by the Container Testing Committee as being the most suitable to date. It is *not*, however, a TAPPI standard. Criticisms are earnestly requested and should be sent to R. G. Macdonald, Secretary, Technical Association of the Pulp and Paper Industry, 122 East 42nd St., New York 17, N.Y.

### Report

The report shall include the following information:

(a) Size and description of containers tested, including data on their liners and closures.

(b) Description of the contents (if packed).

(c) Duration of the test in days.

(d) Position of the containers during the test.

(e) Data on the appearance of the containers, liners, and contents at the completion of the shower test.

## W. G. MacNaughton—TAPPI Medalist

William G. MacNaughton, Engineer for the News Print Service Bureau, New York, N. Y., will be the 1946 recipient of the gold medal of the Technical Association of the Pulp and Paper Industry. This award is given to an individual who has made outstanding contributions to the technical advancement of the pulp and paper industry.

Mr. MacNaughton was born in Hinchinbrooke, P. Q., in 1874. After graduating from Huntingdon Academy in 1893 he taught there and at Shawville Academy, Pontiac County, P. Q. He graduated from McGill University in 1901, receiving the Sir W. E. Logan medal in natural sciences. In 1904 he received an additional degree in chemistry from McGill.

His professional work started at the Canada Paper Company at Windsor Mills, P. Q. in 1902. Upon graduation he became a chemist for the Canadian Rubber Company in Montreal. In 1908 Mr. MacNaughton became employed as a chemist by the Nekoosa-Edwards Paper Company at Port Edwards, Wis., later becoming supervisor of the pulp and paper mills of this Company. While here he became one of the group that founded the Technical Association of the Pulp and Paper Industry. He was also a member of the advisory committee to the Groundwood Research Laboratory of Forest Products which had been established at Wausau, Wis.

From 1917 to 1920 he was vice-president and manager of the Inland Empire Paper Company at Spokane, Wash. and for a brief period in 1920 and 1921 he was at Kapuskasing, Ont. during the initial development of the Spruce Falls Paper & Power Company. Later in 1921 he was appointed Secretary of the Technical Association of the Pulp and Paper Industry, succeeding the late Thomas J. Keenan and remained in that position until 1927 when he joined the News Print Service Bureau as engineer. As Secretary of TAPPI he was also technical editor of the PAPER TRADE JOURNAL.

From 1929 to 1933 he was employed by the International Paper Company in their manufacturing department. From 1933 to 1936 he was assistant director of the Savannah Pulp and Paper Laboratory, established by the late Charles H. Herty for the investigation of the possibilities of southern pine for white papers, particularly newsprint.

Besides the extension of knowledge regarding the papermaking resources of the Southern States, a definite result of this work led to the establishment in 1938 of a newsprint mill in Lufkin, Texas by the Southland Paper Mills which has since continued to make satisfactory newsprint from southern pine. In 1936, with the completion of the work at Savannah, he returned to the News Print Service Bureau where he is at present located.

Mr. MacNaughton has had a long career of public service to the industry and particularly to hundreds of individuals who are employed by the industry. He has always been active in affairs of educational benefit

WILLIAM G. MACNAUGHTON

to the industry and is at present general chairman of the Engineering Division of the Technical Association and also chairman of the Pulp and Paper Manufacture text book revision advisory committee.

The medal will be awarded to Mr. MacNaughton at the annual meeting of the Technical Association of the Pulp and Paper Industry at the Commodore Hotel, New York, N. Y., on February 28, 1946.

## TAPPI Notes

J. F. Maguire, formerly of the Reichhold Chemicals, Inc. is now with the Electro Chemical Products, Inc., Nutley, N. J.

Noel Statham, formerly with the West Virginia Pulp and Paper Company is now with G. E. Prentice Mfg. Company, 200 Fifth Ave., New York, N. Y.

Stanley J. O'Connor is now asst. director of research at the Minnesota & Ontario Paper Company, International Falls, Minn.

John Younger is now in the paper laboratory of the Stein, Hall Company, Long Island City, N. Y.

A. Nelson Myers, formerly of the Chilean Nitrate Sales Company has joined the staff of the Texas Gulf Sulphur Company.

John F. Carroll is recovering from an operation at the Farren Memorial Hospital, Montague City, Mass.

Copies of the Color Atlas of Fiber Identification by John Graff are still available. They may be obtained from the Institute of Paper Chemistry, Appleton, Wis., at $12.50 per copy.

## Home Mechanics Handbook

D. Van Nostrand Company has recently issued The Home Mechanics Handbook (804 pp. 8½x5½). This is a very complete and useful book for mechanics of all types. It covers painting, carpentry, electrical work, plumbing, metal working, plaster, concrete, stucco and brick repairs, alterations, and improvements. Each chapter is written by an expert in his field who has devoted much time to teaching the vocational trades. There are hundreds of illustrations to simplify the various processes.

Copies may be obtained from the Book Department of the Technical Association of the Pulp and Paper Industry, 122 East 42nd Street, New York 17, N. Y., at $5.95 per copy.

# Marketing Research—Partner of Technical Research

By Robert S. Aries[1]

**Abstract**

*For the pulp, paper, and allied industries to meet their postwar problems there is need for effective market research. They should study all the economic problems relating to the production and sale of goods from the manufacturer to the consumer.*

*An outline is given of the scope of a market research program, the type of information which is required, the errors to be avoided, and the organization of a marketing research department and its relationship with the other departments in a company.*

*Also given is a list of literature sources from which information may be obtained.*

The American pulp, paper, and related cellulose products industries have demonstrated their ability during wartime to increase their productivity to unprecedented levels, make technological improvements, and develop new products.

While the production of pulp and paper products in peacetime will be relatively simple, the problem of marketing will not be simple. Since the opening of the war there has been a sellers' market. Because of the principal use of their products as basic materials the reconversion problems in most of the paper industries are not as serious as in many other industries. But even with the unprecedented consumer demand and backlog of savings, the release of the vastly expanded American economy from war production has decreased the volume of consumption of a large amount of its products.

When buyers again dominate the market, the pulp and paper products manufacturer must know how to make his product well, be able to produce it at a price to meet competition, and he must also know more than he has ever before known about how and where to sell it successfully. He should use marketing research, as a coinsurance policy with technical research, to determine the size of the market, relative standing of present products with respect to prospective requirements, costs, competition, trends in legislation, surplus property disposal, national and international developments, etc. Marketing research will also show the way to new products.

Marketing research should be a partner of technical research, production, and sales in the solution of these and many other problems. It will contribute to sales and profits and, coincidentally, avoid possible losses through competition. Production does not automatically create the consumption of the goods it makes. A more efficient distribution will be necessary from now on in both pulp and the products for which it is used.

## Justification of Marketing Research

Although there is the tendency to use the term loosely, the definition of the word "research" reveals that it means a "studious inquiry or examination; a critical and exhaustive investigation or experimentation, having for its aim the discovery of new facts and their correct interpretation". Scientific marketing is well qualified to be termed "research". Despite its importance, marketing research has lagged behind other forms of industrial research, perhaps on account of the absence of any definite methods or its inability to be measured with the infallible exactitude of the results in the physical sciences. Very few cellulose products and related companies have established marketing research departments; some do marketing work in a makeshift fashion, mostly as part of the tasks of their sales departments. A survey which the writer performed, involving 25 leading middle-sized companies in the Northeast manufacturing paper products, resulted in some interesting conclusions although the sample has not been assumed as being necessarily representative. It covered the policies used by the respective companies for developing and measuring the potentialities of an adequate variety of salable products and any steps taken to build up postwar markets. Only one company had an established market research department headed by one whose primary purpose was to delve into market problems. Five companies (25%) considered marketing research as a regular function of the sales department and exercised some efforts to establish quantitative data. Four companies (16%) depended on the sales department in a haphazard way but did not conduct any surveys or other investigations on markets. Nine companies (36%) depended mostly on their technical research and development departments who were expected to "know" how much of a paper or packaging material under development they could sell and at what price. In one case a member of the department "specialized" on economic aspects while otherwise the chief chemist or engineer assumed the task. In two of the above cases, there was cooperation with the sales department, while there was no evidence of close cooperation in the other seven companies. The most interesting group in this survey was the seven companies (28%) who had no provisions whatsoever for marketing and, in most cases, depended upon sheer "hunch thinking" for their planning and analysis. In two instances, outside consultants had been used for short periods of time.

## Necessity for Market Survey

On the basis of the above data, it cannot be said that an effective analysis of markets is being performed by the bulk of the companies investigated. It is true that many of them have an established line of customers, but such an attitude is hardly in unison with strong technical research policies, the development of an optimum sales volume, or being ahead of the competitors. The neglect of distribution is not only unwarranted, but suicidal, because the object of all production is distribution. Many companies attempt expansion through product development without first predetermining their manufacturing skills and then applying them to those fields which represent the best opportunities. These companies hope to obtain some unique product, a patent, or a specialty

[1]Member, TAPPI: Research Associate, Polytechnic Institute, Brooklyn, N. Y., and Field Director, Northeastern Wood Utilization Council, New Haven, Conn.

by chance circumstances, oftentimes entering a "sour grape" market. Marketing research is not a substitute for technical research. In fact, it is futile without good development and production departments. Its function is to strengthen all the other departments. New product development can be costly or even ruinous if the research and manufacturing skills of a particular company are not directed in a scientific way to the markets which present the greatest opportunity for those skills. It is no more possible to avoid scientific analyses of marketing problems than it is to short-circuit technical research and development.

Marketing research on pulp and paper products should be more than a mere analysis of their distribution and merchandising aspects. It should be the guide or partner of technical research rather than its follower. It should study all the economic problems relating to the production and sale of goods from the manufacturer to the consumer, involving relationships between research, production, and consumption, patent and competitive implications, preparation of a cellulose product for sale, distribution, merchandising, and the financial problems concerned.

### Scope of Program

The marketing research department of a pulp and paper manufacturer or his marketing consultants should be able to produce a reasonably accurate answer to a wide variety of questions. They should be able to collect all the facts, analyze them properly, and either draw a program of action or submit a report so that others may draw valid conclusions. It should be remembered, however, that marketing questions should be frequently re-considered in the light of developments as they are never permanently answered. One of the functions of marketing research is to foresee trends. Men actively engaged in selling or advertising to a market are normally unable to conclude that a market is changing its trend until the change affects their selling volume. The resultant delay may be catastrophic to the company. This situation is very acute in some paper and packaging lines where one product may supplant another in a short time. Unless a company checks the "condition" of its market, it may face a situation where it will either be unable to supply the customers with needed merchandise or be unable to sell its obsolete products.

The scope of marketing research thus covers directly the following fields: markets, products and services, general channels of distribution, and competition. Indirectly it will cover such sales items as sales promotion and performance as well as technical items—costs, preliminary patent searches, possible substitutes, etc. These will be discussed in more detail later. The economic "return" for expenditures on marketing research can be summarized as follows:

1. Basing the research, production, and marketing structure on facts rather than guesses, avoids waste efforts and financial losses. While any marketing research in industrial fields is naturally burdened by many imponderables which make absolute accuracy impossible, there is ample evidence that manufacturers with marketing research facilities are avoiding many costly errors and reducing their marketing costs.

2. Research personnel, as well as operating executives, become more "sales minded" by understanding and appreciating the scope of the product.

3. Marketing research cooperates with technical research by providing reliable data on trends, customer preference, and competitors' activities.

4. Better relations between producers and consumers are established by means of marketing research. This is especially important in the pulp products industry which is oftentimes a consumer of its own products. By establishing the correct relationship and methodical viewpoint on raw materials, prices, and quantities, improved marketing methods will undoubtedly result.

5. The expenditures of the research and development departments are oftentimes safeguarded by marketing research. Thus sometimes a projected topic of investigation is abandoned after a survey; even more often a project is abandoned before a large expenditure is made on it as a result of a marketing survey thereby conserving the funds of the company and using the time and efforts of the research staff in more profitable lines of endeavor.

6. A psychological factor should also be considered, similar to the one of technical research. All the employees will be more confident in the soundness of operations and favorable competitive position. They, as well as outside observers, should consider that marketing research constitutes an "insurance policy" just as much as technical research and, in fact, strengthens the value of the latter.

### Marketing Research Report

The most desirable marketing research report is not a detailed "catch-all" but a straight-to-the-point fact-and-figure presentation. In its initial form it should be no substitute for sales record keeping, sales promotion, technical research, or a detailed legal and patent search. The line of demarcation which separates it from these and similar activities should be clearly drawn as the marketing research department cannot be expected to be a specialist in all phases of the company's business nor to have the best answers to all its problems.

A standard marketing research report, which every pulp products company should have on every product is sells or proposes to sell, should contain the following data which can be more or less detailed:

1. Name, type, specifications.
2. Sales figures—quantities, prices, trends, etc. If nonexistent, what demand can be created.
3. Where used—history (if any); extensive uses: small uses; possible new uses. Location of principal markets.
4. Competition; percentages of various markets to company; possible substitutes (or substitutes for).
5. Patent situation—cursory survey, especially for possible infringements.
6. Methods of production. (May be made by the marketing research department or a project engineer in the research and development department. A detailed report should be done by the latter.)
7. Costs, raw materials, plant location factors, cost of plant and equipment; can it support production. (May be made by the marketing research department or a project engineer in the research and development department. A detailed report should be done by the latter.)
8. Methods of sales, packaging, tariffs. (May be made by the sales department.)
9. Recommendation—how a product will fit into present facilities (production, research, and sales), raw materials, transportation, warehousing, etc. Possible profits and other advantages.

The above points are not an ironclad rule, since

each company may have a particular pattern best suited to it. A paper goods factory, for example, has a series of fourteen questions for investigating products, new or old. Each report is used by the postwar committee in deciding the action to be taken.

1. What products are included in this field?
2. What is the normal total volume of each?
3. What proportion of the total should the company reasonably get?
4. What companies are engaged in production in this field?
5. Is the company now operating in this field?
6. Do we have natural advantages in this field from the standpoint of location, quality or quantity of labor, availability of raw materials, access to markets, experience of present personnel?
7. What facilities do we now have for production in this field?
8. What additional facilities would we need?
9. What complications would the addition of these products make in our plant setup, processes, storage facilities, etc?
10. What production have we previously made in this field?
11. What research and development work must we do on the products in this field before they can be put into production? When and how should this work be scheduled?
12. How would these products be sold?
13. Would they utilize any part of our present distribution organization?
14. What has been our profit record with these products?

Many of these questions would seem simple but when tabulated and explained reveal an amazing amount of valuable information.

### Economic Analysis

In its broadest definition, marketing research includes topics which should normally be part of the sales department. They include sales promotion, sales performance, channels of distribution, etc. It is the writer's experience that these topics should be left to the sales and technical service departments although close cooperation and help should be given to them.

Under economic research there can be classified, for example, facts dealing with the geographical location and the density of distribution within geographic areas of potential customers; the limitation imposed upon the sales effort by natural and human obstacles as well as economic barriers; population and its changing character; redistribution of wealth and income; savings; and the basic statistical data upon which they may formulate an accurate maximum sales possibility for later reduction to an achievable sales expectancy.

Such data should be available and kept in mind as they might be the most important factors in the long run. Publications on them should be consulted frequently and kept in mind in all analyses. Oftentimes an outside organization will be better prepared to conduct a strictly economic survey of such a nature if it should be necessary. The sales department should be kept informed on trends and channels of distribution with which it might not be acquainted. The advertising department should properly be "fed" by a well qualified marketing research department, but the latter should not normally do any sales promotion itself.

The marketing research department should cooperate and help the sales department on topics such as the preparation of forecasts, determination of market potentials, setting of quotas (domestic, foreign, individual, class, etc.), measuring consumer acceptance, psychological factors, analyzing competition, and promoting better distribution. Helpful factors in this respect are the use of field interviewers, distributors, if any, and an outside organization, and the combined judgment of the executives of several departments. The setting of sales quotas is the task of the sales department which may utilize the reports issued by the marketing research department. They are given on the basis of trends on shifts in emphasis between products, changes in the characteristics of territories, extent of past sales effort, or new uses for old products. Charts and maps on income, volume, personnel, etc., are helpful in this connection. Surveys with an emphasis on economic aspects frequently necessitate questionnaires, interviews, direct investigations, and elaborate statistical analyses. In the case of the vast majority of pulp products industries such surveys are most advantageously handled by outside organizations who have large staffs specializing in securing a composite picture of present and expected business conditions in a given company's market.

### Liaison to Technical Research

In all cases where the marketing analysis shows promise, it should be followed by a more detailed technical analysis which is the liaison between the marketing research department and the research laboratory or pilot plant. This can best be done by a chemist or preferably a chemical engineer who will "follow up" the report. He can be affiliated with either department but should preferably be under technical research as the project should be taken out of the hands of marketing research once it has submitted its report, save for corrections or additions to it. The project and process analyst will reexamine the report, especially with respect to its technical phases, analyze methods of production, costs, raw materials, location factors, optimum scale of operation, etc., and pass the problem along for further research or development work.

The project engineer is an important link in the chain of people responsible for new product development, as will be described in more detail later. It should be clearly understood, however, that unless there is cooperation between all the departments with marketing research, the work of the latter will be severely handicapped.

### New Product Development

Under product development may be included not only the technical developments within a company's own organization, or a retained consultant, but also the acquisition of other companies, other established products, or new and untested products. Product development proper is out of the scope of the present discussion, but it should be stressed that marketing research is not a substitute for it. It merely illuminates it and directs it to the markets which present the greatest opportunity for the company's skills. Several steps are involved in new product research which may be summarized as follows:

1. Creating facilities for securing new ideas. They may emanate from the operating and research staff, sales and technical service organization, executives, or outside sources.

2. Preliminary weeding. This screening is done on the basis of the memorandum describing the idea and can be done by executives, in the development or operating staff, marketing research or sales departments. Its purpose is to eliminate suggestions with easily discernible basic defects.

3. Preliminary technical research may sometimes precede a market research. A study may be made to explore the potentialities and do further screening.

4. Marketing research is conducted before substantial amounts are spent on technical research. A preliminary market analysis is often made, at the request of any other department, before conducting any technical research. A final marketing analysis is frequently scheduled to accompany or follow the pilot plant work.

5. Project and process analysis can be made part of the marketing research or done by a specially

trained man of the technical department. It will include a process analysis, study of costs, profits, plant investment, and a preliminary design.

6. Development work by the research and development department. While it is being conducted or after all the major "bugs" are taken out of it, a detailed marketing survey is in order.

7. Regular production.

The marketing research is thus only a small but important part of product development. It should correct the costly procedure of attacking markets just because they "look attractive". It determines their actual potential, obtains their essential characteristics and requirements, discovers whether the company can meet them and make a real contribution to the advantage of all concerned.

### Marketing Research Department Organization

As stressed throughout the discussion, marketing research should be an organized activity of a company. It is natural that no fixed pattern can be prescribed for all companies, as much will depend on the amounts, character, and scope of the products made, financial condition of the firm, etc. One of the following categories may be followed:

1. An independent department or division.

2. A unit of one or more workers who are part of the sales or research and development department. Sometimes a consultant performs similar tasks.

3. A committee, either alone or supplementing the above patterns.

There is a trend toward the formation of a central marketing research department, which would neither neglect the function—a possibility in the case of an executive with several tasks—nor would it be prone to present biased opinions. A typical setup would consist of: Director of market research, market analysts (one or more), statistician, librarian and senior secretary, and secretary. Variations to this setup may include tabulators and comptometer operators, field investigators and interviewers, the use of the company's staff librarians, the use of marketing research consultants, etc. It is desirable to have a small compact staff, extensive field research being left to outside agencies.

Interdepartment committees on marketing research have not proved very efficient in the pulp and paper industries. They may help avoid duplication of effort and make suggestions but do not seem to create adequately the mechanism for practical research and fact-finding on a continuous basis. Unless someone takes the matter in his hands, a lagging tendency in committee activity will increase. Sometimes committees may be found able to supplement the marketing research department or the market analyst. In the case of a central department the importance of a committee is minimized as the reports are circularized to all interested executives, with a request for comments. Continuous close cooperation between the various departments also makes committee meetings of lesser importance. Individual preferences will, of course, determine the exact approach and procedure.

The man in charge of marketing research (and to a lesser extent, his assistants) should enjoy strong executive sponsorship and have a high standing in the organization. In contrast to the requirements of some other industries, it is desirable that he be technically trained. As formal education he should preferably have also a degree in business administration which should be considered an asset but not a prerequisite because of the limited number of individuals who could meet the dual requirements.

It is hoped that more colleges will organize courses of such a nature in the future. The marketing research director should have a varied experience in research, development, production, and marketing. He should be an "open-minded human dynamo" with visionary and creative talent. He should leave no taste of an academic view although he should respect detail and have a sound judgment and keen discrimination. Diplomacy, suggestive persuasion, persistence, and administrative ability, coupled with literary abilities, are also desirable qualities.

The manager of marketing research should preferably report to the president or executive vice president and general manager. Such a setup rather than departmental jurisdiction eliminates self interest and broadens his scope of activity. A very efficient chemical marketing department, for example, is headed by an individual who is also assistant to the president. In order to obtain sound data, the director of marketing research should enlist the cooperation of all departments both in securing information and being asked to help them by conducting studies.

### Marketing Errors

Common causes responsible for failure of chemical marketing research are:

1. Use of unqualified men for marketing research. As in technical research, this is a very basic problem. If a man has been a good employee, whether in research, sales, or advertising, he is not necessarily qualified to be a good marketing researcher. The person in charge should not only be a good technical and businessman, but should also be devoid of prejudice and wishful thinking. His personnel should be of the well qualified, well remunerated type.

2. As explained elsewhere, marketing research should not be placed under an executive who cannot devote enough time to it. The marketing research group should be able to contact all departments, yet be uncolored by the interests of any one of them. The person or consultant in charge should devote all his efforts to it in an unbiased manner.

3. Performing mistakes of analysis, such as overestimating or underestimating the company's percentage in the total market. While it may be natural to belittle one's competitors, the opposite is oftentimes true. The overcautious marketing man frequently underestimates the opportunity for creating new business by overestimating the company's competitors as a sales obstacle.

4. Making chemical and technical mistakes. If the department is not manned by technical men, the company will be exposed to the dangers of "half-baked" plans resulting from an insufficient background of chemical knowledge. Nontechnical men will depend more heavily on the literature and thus follow progress rather than precede it. Such men are apt to be ridiculed by the research department and lack the esteem and cooperation which marketing research needs in order to be successful.

5. Making economic and business mistakes. While the percentage of error in executive judgment is relatively high, items such as price resistance, competitors sales policies, relative value of sales, and advertising appeals should be judged in a sound manner. Placing too much reliance on personal observations is dangerous. Oftentimes a technical man is reluctant to study and analyze complex statistics. A good businessman will face the facts promptly

when sales decline rather than blame others for it.

6. Failure to apply the facts developed by marketing research. In a number of cases with which the writer is familiar, competent surveys have been made only to be filed into oblivion by some executive. It is surprising to know how many companies have spent money on reports and not only fail to use the data developed, but consider it "confidential", do not circulate it in the company, and do not even read more than the summary and the headings.

7. The time factor is often disregarded in connection with marketing research. Many executives appreciate the fact that chemical research may extend over long periods but underestimate the amount of spadework necessary for the investigation of the marketing aspects. Projects sometimes require considerable time of "genation" and the results may not become apparent immediately. Impatience on the part of executives through lack of understanding can—just as in technical research—tend to discourage dependable work and lead the marketing research personnel to seek shortcut alleys and projects of work.

## Common Sources of Data

Besides data from one's own company such as that available or obtainable by the sales, accounting, manufacturing, and research departments, outside or secondary sources are used extensively in marketing research. They are invaluable as a research tool for oftentimes the value of a report is a direct function of the efforts put into studying and collating the various sources of data.

The reader is referred to some of the publications cited which give extensive bibliographies.

*Department of Commerce, Bureau of Foreign and Domestic Commerce:*

Statistics and Maps for National Market Analysis (1944)
Market Research Sources (1940) (An index of marketing data)
Domestic Commerce (monthly)
Survey of Current Business (monthly)
Foreign Commerce Weekly
Regional Shifts in Population, Production and Markets, 1939-1943 (1943)
An Outline for Making Surveys (1944)
The Businessman's Bureau (1944)
Check List for the Introduction of New Consumer Products (1945)
Sources of Regional and Local Current Business Statistics (1940)
Industrial Market Data Handbook of the United States (1938)
Trade and Professional Associations of the United States (1942)
Quarterly Reports of Regional Business Consultants
Industry Reports: Pulp and Paper; Lumber; Domestic Transportation; etc.
Industrial Market Data Handbook of the United States (1939)
The Paint, Varnish, and Lacquer Industry (1939)
The Pulp and Paper Industry (1937)
The Textile Industries (1936)
Chemical Developments Abroad (1939)
Industrial Reference Service—Chemical and Allied Products (discontinued in 1942; started anew 1945)
Market Prospects after the War (1944)
Consumer Market Data Handbook (1939)
Statistical Abstract of the United States (1944)
Foreign Commerce and Navigation of the United States, for the Year 1941 (1943)
Sources of Regional and Local Current Business Statistics (1940)
List of Publications of the U. S. Department of Commerce (1944)

*Department of Commerce, Bureau of the Census:*

Reports of the 16th Decennial Census of the United States (1940)
Census of Business (1939)
Census of Manufactures (1939)
Census of Population (1940)
Census of Agriculture (1940)
Other publications or reprints: Census of Housing; Estimated Civilian Population (1943); Miscellaneous reprints on chemicals and allied products, building materials and equipment, cotton and cottonseed oils, iron and steel and their products, food and kindred products, machinery and transportation equipment, nonferrous metals and their products, paper and allied products, textiles and clothing, etc.

*Other Government Agencies:*

Department of Agriculture—statistics on forest and agricultural products and byproducts (especially Bureau of Agricultural Chemistry and Engineering and the Forest Products Laboratory)
Bureau of Mines: New Publications, Minerals Yearbook, monthly reports on coal, coke, cement, petroleum, etc.
Department of Labor: Statistics of labor, employment and prices in Monthly Labor Review, Labor Handbook, Industrial area studies, etc.
Treasury Department: Especially Bureau of Internal Revenue
Tariff Commission: Numerous reports on chemicals and allied products
Securities and Exchange Commission: Census of corporations, directories, and miscellaneous publications
Civil Aeronautics Board: Data on air navigation
Federal Power Commission: Electric power statistics
Federal Reserve System: Annual reports, Bulletin
Federal Trade Commission: Reports on fair trade, agriculture, textiles, etc. Annual report on chemical industries
Office of Price Administration
Interstate Commerce Commision
Public Roads Administration
National Bureau of Standards: Numerous publications and lists
United States Housing Authority: Several publications, including Technical Bulletin
War Food Administration
Federal Works Agency (now discontinued)
War Production Board: Miscellaneous reports, statistics, bulletins
Miscellaneous Senate and House documents, hearings, etc.
Works Projects Administration (now discontinued)
Smaller War Plants Corporation
Maritime Commission: Statistics on water transportation
National Resources Planning Board: Reports up to 1944 on income and expenditures, trends, building, research, etc.
State and local governments

*Pulp and Paper Associations and Societies:*

American Paper and Pulp Association
American Pulp and Paper Mill Superintendents Association
American Pulpwood Association
Association of Pulp Consumers
Blotting Paper Manufacturers Association
Book Paper Manufacturers Association
Bristol Board Group
Coated and Processed Paper Association
Cover and Text Paper Committee
Glassine and Greaseproof Manufacturers Association
Ground Wood Paper Manufacturers Association
Kraft Paper Association, Inc.
National Paperboard Association
National Paper Trade Association
National Safety Council Paper and Pulp Section
National Safety Council Paper and Pulp Section
Newsprint Manufacturers' Association
Paper Makers Advertising Association
Paper Napkin Association, Inc.
Paper Shipping Sack Manufacturers Association
Salesmen's Association of the Paper Industry
Soda Pulp Manufacturers Association
Specialty Paper and Board Affiliates
Sulphite Paper Manufacturers Association
Technical Association of the Pulp and Paper Industry
Tissue Association, Inc.
United States Pulp Producers Association
Vegetable Parchment Manufacturers Association
Waterproof Paper Group
Waxed Paper Institute
Writing Paper Manufacturers Association

*Other Associations and Societies:* For a detailed list see Trade and and Professional Associations of the United States, U. S. Department of Commerce (1942)

American Association of Manufacturers
American Association of Textile Chemists and Colorists
American Chemical Society
American Economic Association
American Institute of Chemical Engineers
American Institute of Fertilizer Chemists
American Management Association
American Marketing Association
American Petroleum Institute
American Pharmaceutical Manufacturers' Association
American Statistical Association
Association of American Soap and Glycerin Producers
Brookings Institution, The
Committee for Economic Development
Druggists' Research Bureau
League of Nations
Manufacturing Chemists' Association
National Association of Insecticide and Disinfectant Manufacturers
National Bureau of Economic Research
National Fertilizer Association
National Industrial Conference Board
National Paint, Varnish and Lacquer Association
Society of the Plastics Industry
Society for the Advancement of Management
Synthetic Organic Chemical Manufacturers Association of the United States
Toilet Goods Assotiation
Twentieth Century Fund

*Additional sources include:* engineering, technical, and trade societies, United States Chamber of Commerce and local chambers, state development commissions; university business research bureaus at University of Minnesota, Michigan, Pennsylvania, Chicago, Harvard, Yale, Stanford, Ohio State, and others; business services on economics proper: bulletins issued by consulting firms and technical advisers, bulletins of private banks; and annual reports of chemical and other corporations.

*Technical and Trade Magazines:* Important emphasis should be placed on periodicals since they report on current developments and economic conditions. The N. W. Ayer and Son Directory lists all publications and their addresses.

Advertising and Selling
American Business
American Paint Journal
Barron's Investors Guide
Business Week
Chemical Abstracts
Chemical and Engineering News
Chemical and Metallurgical Engineering
Chemical Equipment Preview: New chemicals and equipment
Chemical Industries
Editor and Publisher
Fortune
India Rubber World
Industrial Arts Index

Industrial Marketing
Industrial and Engineering Chemistry
Iron Age
Journal of Marketing
Manufacturers' Record
Metals and Alloys
Modern Plastics
Oil and Soap
Oil, Paint, and Drug Reporter
Paint Industry Magazine
Paper Industry and Paper World
Paper Mill News
Paper Trade Journal
Patent Gazette
Printers' Ink
Pulp and Paper Magazine
Rayon Textile Monthly
Readers' Guide to Periodical Literature
Rubber Age
Southern Pulp and Paper Journal
Steel
Textile World

*Miscellaneous Publications:*

Barrell's Manual
Chemical Dictionary, T. C. Gregory
Chemical Engineering Catalog
Chemicals of Commerce, F. D. and C. T. Snell
Chemical Facts and Figures, The Manufacturing Chemists' Association (1940)
City directories
Commercial Fertilizer Year Book
Commodity Year Book
Cumulative Book Index
Daily newspapers: especially, Journal of Commerce, Chicago Tribune, Wall Street Journal, New York Times, and New York Herald Tribune
Davison's Textile Directory
Dun's Review
Economics of Chemical Industries, E. H. Hempel
Green Book: Directory of products and sources of supply
Lockwood's Pulp and Paper Directory
Materials Survey, McGraw-Hill Book Co. (1944)
Modern Drug Encyclopedia and Therapeutic Guide
Monthly catalog of United States Public documents
Pacific Plastics
Plastics (Chicago)
Plastics and Resins Industry
Plastics Catalog
Post's Pulp and Paper Directory
Public Affairs Information Service
Rand McNally Commercial Atlas and Marketing Guide
Soap Blue Book
Survey of Buying Power
Telephone directories, regular and classified, of the leading cities
The Fertilizer Review
Uses and Applications of Chemicals and Related Materials, T. C. Gregory (2 volumes)

*References on Marketing Research:*

The Technique of Marketing Research, McGraw-Hill Book Co. (1937)
Market Research & Analysis, L. O. Brown, Ronald Press Co. (1937)
Sales Analysis from the Management Standpoint, D. R. G. Cowan, University of Chicago Press (1938)
Numerous college textbooks on marketing. (consult any publisher)
The Relation of Market Research to Postwar Planning, J. T. Anderson, *Journal of Marketing* (October 1942)
Post-War Marketing, T. C. MacGowan, Bankers Trust Co. (1944)
Planning Post-War Products and Markets. Metropolitan Life Insurance Co. (1944)
Products, Markets and Research, A. P. Hirose, No. 56, American Management Association (1944)
Research for Post-War Planning, L. O. Brown, *Sales Management* (October 10, 1942)
Scientific Methods of Distribution, F. B. Turck and W. E. Hill, *Mech. Eng.* (March 1944)
Guide to Post-War Sales Planning, National Association of Manufacturers (1944)
Proven Methods of Market Research, D. R. G. Cowan, No. 40, American Management Association (1940)
Wanted: A Realistic Post-War Program for Firms Selling to Industry, W. B. Spooner, Jr., *Sales Management* (January 1, 1944)
Ethical Concepts Vital to Market Research, W. J. Reilly, The *International Journal of Ethics* (October 1926)
Research Today for Tomorrow's Markets, V. D. Reed, *Industrial Marketing* (April, 1942)
Economic Background for Post-War Reconstruction, National Industrial Conference Board (1943)
A Company Guide to Marketing Research, American Management Association (1944)
Forecasting Sales, Metropolitan Life Insurance Co. (1944)
Finding and Planning the Post-War Sales Structure, D. R. G. Gowan, No. 53 American Management Association (1943)
The Style and Quality Market of the United States, Hearst Magazines Inc. (1939)
Profits from Practical Marketing Research, F. K. Leisch, No. 24. American Management Association (1937)
Planning for Post-War Operations, Metropolitan Life Insurance Co. (1944)
A Business Appraisal of Post-War Markets, Committee for Economic Development (1944)
Product Development, Metropolitan Life Insurance Co. (1942)
Market Research as a Basis for Effective Sales Organization. Bernard Lester, No. 40, American Management Association (1940)
How Much "Deferred Demand" Will Turn Out to Be a Pipedream, Fowler Manning, *Sales Management* (January 15, 1944)
Preparation and Use of Salesmen's Manuals, Metropolitan Life Insurance Co. (1939)
Market Patterns in Eight Large Cities, Division of Commercial Research, Curtis Publishing Co. (1938)
Marketing Research, R. S. Aries, *Chem. Eng. News* (May 10, 1945)
Expansion Research, R. L. Davis and G. L. Collins, *Chemical Ind.* (June 1945)

## Delaware Valley Section Discusses Stream Flow Vats

The Delaware Valley Section of the Technical Association of the Pulp and Paper Industry met for its regular December monthly meeting on Friday, December 7th at the Engineers' Club of Philadelphia. Chairman A. L. M. Bixler turned the meeting over to Mr. Macadam who read a letter of appreciation from Mrs. Edge and her daughter for the tribute to her husband and father.

Glen T. Renegar of the Container Corporation of America introduced the speaker, Philip Goldsmith of Pusey & Jones Corporation, Wilmington, Del. Mr. Goldsmith's subject was "The Development of the Stream Flow Vat," and he stated that this equipment was not based on any new principle but on facts which have been accumulated by cylinder machine operators on cylinder formation.

The fundamental principles of sheet formation are along two different lines—(1) drainage as on the fourdrinier machine and (2) felting on a mold as on the cylinder machine. Good sheet formation depends on the following conditions: (1) thoroughly mixed fibers; (2) exclusion of air; (3) steady feeding of stock; (4) flow of stock must be spread evenly across the machine; (5) flow around the mold controlled and adjustable; (6) no slippage on mold where it emerges from the vat; and (7) no crushing at the couch roll.

This system made possible thorough mixing of the component stocks (new stock, recirculated stock and white water) within the supply lines without adding air to the system.

Any air in the stock is allowed to escape upward with the upward flow of the stock in the overhead flow vat which is essentially one cone inside of another.

The under fled pipe to the vat is in the machine direction which prevents sidewise currents from setting up in the stock through flow occurring in the opposite direction. The principle of the hydraulic nozzle was used to increase the velocity while spreading the width of the stock flow in several passes. Alternate speeding up and slowing down the stock in the flow spreader controls the velocity conditions.

A discussion of the principles of this installation and its performance followed the formal presentation.

Those present included: E. J. Albert, Walter Ash, N. E. Bartlett, E. R. Baublitz, Dorothy A. Beiswinger, R. T. Bingham, A. L. M. Bixler, Geo. K. Boger, Jr., Alan R. Boyd, Samuel M. Bratton, C. L. Brickman, H. C. Brill, K. W. Britt, Philip G. Bruno, Edw. Buckalew, J. W. Burke, Charles W. Carr, Jr., John Carson, Joseph D. Clark, C. M. Connor, W. N. Connor, George H. Detwiler, J. C. Dieffenderfer, W. P. Dohne, J. R. Dufford, James C. Eaton, G. J. Eberz, Harrison J. Farra, Jeanne H. Fisher, J. F. Good, Philip H. Goldsmith, Frederick W. Goetz, E. N. Glauner, L. V. Hans, J. C. Harper, Jr., Harry Hulmes, Thos. A. D. Jackson, S. T. Jamison, Nard Jones, Lt. R. H. Lippincott, K. S. Lord, E. G. Lyons, J. Macadam, John W. MacAllister, C. S. Maxwell, Louise E. McGrath, Alex McInnes, H. C. Merritt, Lewis B. Miller, Edward C. Molin, Harvey E. Mumford, D. L. Owne, J. A. Paciello, Wm. G. Putney, F. M. Rapp, Glen T. Renegar, C. H. Rice, John Roslund, Frank M. Sanger, G. C. Sheatenlub, Chas. A. Shubert, Mildred H. Simon, L. Jay Smith, W. A. Steele, H. H. Street, George M. Suydam, Frances Talley, David R. Traill, Jack Ward, A. E. Waugh, John P. Weidner, R. W. Wiggins.

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Figure 27
Standard
Screwed Ends

THE KENNEDY VALVE MFG. CO., ELMIRA, N. Y.

# New York Paper and Pulp Market Review

## Newsprint Price Increased $6 To $67 Per Ton—Wood Pulp Supply Situation Continues To Improve — Rag Market Active — Bagging Market Firmer—Folded News and Mixed Paper Demand Heavy.

Office of the PAPER TRADE JOURNAL,
Wednesday, December 12, 1945.

Production of paper continues high at over 97% but demand is so heavy for all major paper items that the supply situation is still relatively tight. This is likely to continue until distributors have built up inventories to more normal proportions to serve customers more efficiently than on the hand-to-mouth basis so prevalent in the war years.

The general outlook is more promising than the complications in the current situation seem to reflect. There is no reason to believe that there will not be sufficient paper to meet every need and our peacetime economy is being reestablished at reasonably good speed today. The price factor is apparently of more major importance than higher wage demands which increase current and immediate future costs. The newsprint price situation is an example. Now that the price of newsprint has been increased $6 per ton to a price of $67 per ton f.o.b. New York, improvement in this division of the industry can be expected. In general, prices are rigidly being maintained at too low a level and inconsistent with the rising costs of materials and higher wages. There seems little doubt that, in order to establish a higher standard of living, our future economy must be maintained at a higher level of prices than in pre-war years.

The index of general business activity for the week ended December 1 rose to 128.0, from 124.1 in the preceding week, compared with 144.5 for the corresponding week in 1944. The index of paperboard production was 156.3, compared with 165.5 in the preceding week, and with 159.0 for the corresponding week in 1944.

Paper production for the week ended December 1 was estimated at 97.5%, compared with 91.0% for 1944, with 92.2% for 1943, with 84.9% for 1942, and with 106.9% for the corresponding week in 1941.

Paperboard production for the week ended December 1 was 93.0%, compared with 94.0% for 1944, with 95.0% for 1943, with 82.0% for 1942, and with 102.0% for the corresponding week in 1941.

The increase in newsprint paper $6 per ton setting a new price of $67 per ton in rolls, became effective December 11, 1945, through Amendment 12 to Revised Maximum Price Regulation 130. The price of $67 per ton for standard newsprint covers 38 "port" cities, with different ceilings for deliveries in ten specified zones. The Newspaper Advisory Committee has recommended the ending of all controls at the end of this year.

### Wood Pulp

The gradual improvement in the wood pulp supply situation is indicated in the improvement in inventory accumulation and the good volume of Swedish imports. Reports indicate that mills consuming market pulp are improving their inventory position which was very low early this year. Consumption of wood pulp in the white paper grades is increasing, as had been expected, more and more pulp going into the production of heavier weights of papers.

### Rags

Mill demand for new cotton cuttings is reported heavy at this date. Supply is quite widely reported inadequate to meet current demand. No change from a relatively short supply is expected until more cotton goods are available for domestic consumption. Prices are firm at ceiling levels.

Demand for roofing grades of old cotton rags is heavy, and above supply. No improvement in the supply situation is expected in the trade until more cotton products are available for general consumption. Prices are firm and unchanged.

### Old Rope and Bagging

The limited amount of Manila fiber now imported is too small to be available only for essential government uses, with little available as waste that can be acquired by paper mills.

More inquiries for scrap bagging are reported this week than for months past. Reports from some quarters state that dealers are not too eager to sell under current prices. Prices appear firmer in tone but no important change has been reported at this date.

### Old Waste Paper

Mill demand for old waste paper continues active, with all grades being purchased in good volume at this date. Demand for shavings, ledgers and kraft grades is steady. Folded news is still reported in short supply and mills' needs for No. 1 mixed paper continues to be only partly met. Demand for old corrugated is steady but demand is less broad and insistent than in the past. Prices hold firm at ceiling levels in all grades of paper stock.

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## NEPMA Takes Larger Space

BOSTON, Mass., December 10, 1945—Norman E. Scott, Executive Secretary, The New England Paper Merchants Association, Inc., has arranged that, effective January 1, 1946, the Association will vacate its present office at 89 Broad street, and occupy larger quarters in the Rice Building, Room 328, 10 High street. The expanding activities and increasing membership of this progressive association, organized forty years ago and representing extensively paper merchants in New England, necessitates this action. It is understood that the telephone connection will continue to be LIBerty 5256.

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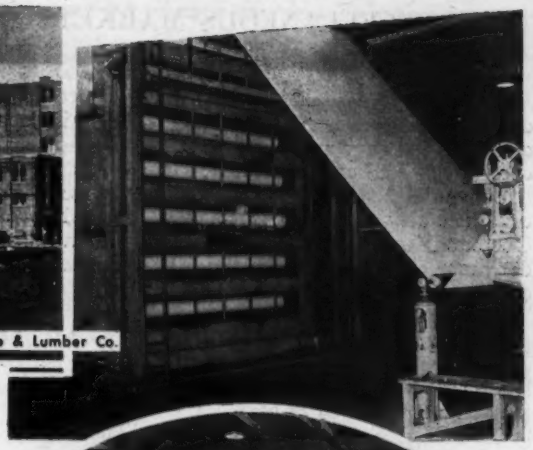
## Bundy Goes West as Promotion

PHILADELPHIA, Pa., December 10, 1945—R. E. Bundy, vice-president and general manager of Federal Container Company, a wholly-owned subsidiary of Fibreboard Products, Incorporated, has been transferred to the head office of the parent company at San Francisco as general operating manager.

B. P. Altick, sales manager of Federal, has been elected vice-president and general manager to succeed Mr. Bundy at Philadelphia.

Photos courtesy Puget Sound Pulp & Lumber Co.



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## MISCELLANEOUS MARKETS

Office of the PAPER TRADE JOURNAL,
Wednesday, December 12, 1945.

BLANC FIXE—Quotations on blanc fixe continue unchanged. Demand is reported fair. The pulp is currently quoted at $40 per ton, in barrels, at works; the powder is currently quoted at $60 per ton, f.o.b. works.

BLEACHING POWDER—All-over current demand continues active. Supply situation is reported favorable. Quotations continue unchanged. Prices on bleaching powder range from $2.50 to $3.10 per 100 pounds, in drums, car lots, at works.

CASEIN—OPA maximum prices on processed acid-precipitated casein are as follows: 10,000 pounds or more, 24 cents per pound; 2,000 pounds, 24¼ cents per pound; less than 2,000 pounds, 24¾ cents per pound, f.o.b. shipping point. Imported 24 cents.

CAUSTIC SODA — Demand continues heavy. Deliveries continue slow. Supply tight in dry grades. Solid caustic soda is quoted at $2.30 per 100 pounds; flaked and ground is quoted at $2.70 per 100 pounds.

CHINA CLAY — Quotations on china clay are unchanged. Current demand is reported fair. Domestic filler clay is currently quoted at from $7.50 to $15 per ton; coating clay is quoted at from $12 to $22 per ton, at mine. Imported clay is quoted at from $13 to $25 per long ton, ship side.

CHLORINE—Demand heavy with temporary short supply. Paper requirements fully met. Quotations unchanged. Chlorine is currently quoted at $1.75 per 100 pounds, in single unit tank cars, f.o.b. works.

ROSIN—No offerings and sales. "G" gum rosin is quoted at $6.74 per 100 pounds, in barrels, at Savannah; "FF" rosin at $6.70 per 100 pounds in barrels, at New York; seventy per cent gum rosin size at $6.95 per 100 pounds, f.o.b. works.

SALT CAKE—Prices on salt cake are reported unchanged for the current week. Consumption is reported higher this week. Domestic salt cake is quoted at $15 per ton, in bulk. Chrome salt cake is quoted at $16 per ton. All prices in car lots, f.o.b. shipping point.

SODA ASH — Heavy demand continues for all-over requirements. Supply short. Bulk lot shipments steady. Bagged lots still slow. Quotations continue unchanged. Current prices, car lots, per 100 pounds, are as follows: in bulk, $.90; in paper bags, $1.05; and in barrels, $1.35.

STARCH—Corn receipts and shipments lower than last week and above last year. Prices steady. Starch prices continue unchanged. The pearl grade is quoted at $3.72 per 100 pounds; powdered starch at $3.83 per 100 pounds; all prices in bags, car lots, f.o.b. Chicago.

SULPHATE OF ALUMINA — Demand reported steady. Supply situation reported good. Quotations continue unchanged. The commercial grades are quoted at from $1.15 to $1.25 per 100 pounds, in bags, car lots, f.o.b. works. The iron free is currently quoted at $1.75 per 100 pounds, in bags, at works.

SULPHUR—Quotations on sulphur continue to conform to prevailing market prices. Demand active. Annual contracts are quoted at $16 per long ton, f.o.b. mines; the price at Gulf Ports is $17.50 per long ton.

TALC—Prices on talc continue unchanged. Demand good. Domestic grades are currently quoted at from $16 to $21 per ton at mines; Canadian at $24 per ton.

### Kohler Systems at East Chicago Ave.

The address of the Kohler Systems Company, in an advertisement in the November 22 issue of the PAPER TRADE JOURNAL, was incorrect. The company is located at 159 EAST Chicago Ave., Chicago, Ill.

## MARKET QUOTATIONS

All market quotations, excepting those otherwise designated as official OPA maximum prices, are based on the manufacturers' price level as of October 1-15, 1941; maximum wholesale prices are based on the merchants' maximum prices for stipulated quantities at a quoted price to all customers of a like class, as shown by the merchant's sales records of goods delivered during March, 1942. A merchant's price list in effect in March 1942, showing quotations of actual shipments, will establish the current maximum prices.

### Paper

(Delivered New York)

**Standard News, per ton—**

| | | | |
|---|---|---|---|
| Roll, contract | *$67.00 | @ | — |
| Sheets | 75.00 | @ | — |

* OPA Maximum Price.

**Kraft—per cwt.—Carload Quantities Zone A, Delivered**

| | | | |
|---|---|---|---|
| Superstandard Wrapping | *$5.25 | @ | — |
| No. 1 Wrapping | *5.00 | " | — |
| Standard Wrapping | *4.75 | " | — |
| Standard Bag | *4.375 | " | — |

* OPA Manufacturers' Prices.

**Tissues—Per Ream—Carlots**

| | | | |
|---|---|---|---|
| White No. 1 | 1.12½ | " | — |
| White No. 1 M. G. | 1.10 | " | — |
| White No. 1½ | 1.00 | " | — |
| White No. 2 | .90 | " | — |
| Anti-Tarnish M.F. | 1.20 | " | — |
| Colored | — | " | — |
| Kraft | .95 | " | — |
| Manila | .90 | " | — |

**Toilet—1 M. Sheets—Per Case**

| | | | |
|---|---|---|---|
| Unbleached | 4.25 | " | — |
| Bleached | 5.70 | " | — |
| Unbl. Toilet, 1 M. | 4.16 | " | — |
| Bleached Toilet | 5.70 | " | — |

**Paper Towels, Per Case—**

| | | | |
|---|---|---|---|
| Unbleached, Jr. | 2.20 | " | — |
| Bleached, Jr. | 3.20 | " | — |

**Manila—per cwt.—C. l. f. a.**

| | | | |
|---|---|---|---|
| No. 1 Jute | 11.25 | @ | — |
| No. 1 Manila Wrapping, 35 lb. | 6.00 | " | 6.25 |

**Boards, per ton—**

| | | | |
|---|---|---|---|
| News | *$0.00 | @ | — |
| Chip | *50.00 | " | — |
| Sgl. Mla. Ll. Chip | *62.00 | " | — |
| White Pat. Coated | *75.00 | " | — |
| Kraft Liners 50 lb. | *63.00 | " | — |
| Binders Boards | 84.00 | " | 116.00 |

* OPA Base Prices per 10 tons. Less than 10 tons but over 3 tons, add $2.50; three tons or less, add $5; regular 35-39 basis, add $5.; basis 40-49, add $2.50; basis 91-100, add $2.50; basis 101-120, add $5.

The following are representative of distributors' resale prices:

**Rag Content Bonds and Ledgers—White, Assorted Items, Delivered in Zone 1:**

| | Bonds | Ledgers |
|---|---|---|
| 100% Rag Ext. No. 1 | $39.10@$46.60 | $40.25@$47.25 |
| 100% Rag | 32.20 " 37.75 | 33.35 " 39.25 |
| 85% Rag | .... " .... | 29.90 " 35.00 |
| 75% Rag | 23.00 " 27.00 | 24.15 " 28.25 |
| 65% Rag | .... " .... | 22.80 " 27.75 |
| 50% Rag | 18.70 " 22.75 | 19.90 " 24.25 |
| 25% Rag | 16.40 " 20.00 | 17.55 " 21.50 |

Colors at $1.00 cwt. extra.

**Sulphite Bonds and Ledgers—White, Assorted Items. Delivered in Zone 1:**

| | Bonds | Ledgers |
|---|---|---|
| No. 1 | $10.55@$12.75 | $11.70@$14.25 |
| No. 2 | 9.65 " 11.75 | 9.80 " 13.25 |
| No. 3 | 9.20 " 11.25 | 9.35 " 12.50 |
| No. 4 | 8.90 " 10.75 | 10.85 " 12.25 |

Colors $1.00 cwt. extra

**Free Sheet Book Papers—White, Cased Paper. Delivered in Zone 1:**

| | | |
|---|---|---|
| No. 1 Glossy Coated | $13.65@ | $13.9 |
| No. 2 Glossy Coated | 12.40 " | 14.0 |
| No. 3 Glossy Coated | 11.60 " | 13.2 |
| No. 4 Glossy Coated | 11.15 " | 12.7 |
| No. 1 Antique (watermarked) | 10.25 " | 11.7 |
| No. 2 Offset | 9.60 " | 11.0 |
| A Grade E. F. | 9.35 " | 10.7 |
| A Grade S. & S. C. | 9.60 " | 11.0 |
| B Grade E. F. | 8.85 " | 10.2 |
| B Grade S. C. | 9.10 " | 10.5 |
| C Grade E. F. | 8.55 " | 9.7 |
| C Grade S. C. | 8.80 " | 10.0 |
| D Grade E. F. | 8.25 " | 9.5 |
| D Grade S. & S. C. | 8.50 " | 9.7 |

Ivory & India at $.50 cwt. extra.

### Wood Pulp

**OPA Maximum Prices and Canadian Manufacturers Prices, Less Freight Not Exceeding OPA Allowances.**

| | |
|---|---|
| Bl. Softwood Sulphite | $86.0 |
| Unbl. Softwood Sulphite | 74.0 |
| Bl. Hardwood Sulphite | 83.5 |
| Unbl. Hardwood Sulphite | 71.5 |
| Bl. Mitscherlich | 81.0 |
| Unbl. Mitscherlich ..72.00 @ | 82.0 |
| N. Bleached Sulphate | 86.0 |
| S. Bleached Sulphate | 79.0 |
| N. Semi-Bleached Sulphate | 82.0 |
| S. Semi Bleached Sulphate | 75.0 |
| N. Unbl. Sulphate | 72.0 |
| S. Unbl. Sulphate | 63.5 |
| Bl. Soda | 76.0 |
| Unbl. Soda | 72.0 |
| Groundwood | 50.0 |

**Transportation Allowances**

**Applying to Producers of Wet Wood Pulp.**

| | Below 50% Air Dry Weight |
|---|---|
| Northeast | $13.50 |
| Lake Central | 13.50 |
| Southern | 16.00 |
| West Coast (in area) | 10.50 |
| West Coast (out area) | 16.50 |

| | 50%-80% Air Dry Weight |
|---|---|
| Northeast | 11.50 |
| Lake Central | 11.50 |
| Southern | 14.00 |
| West Coast (in area) | 9.50 |
| West Coast (out area) | 15.50 |

**Applying to Producers of Dry Wood Pulp.**

| | Above 80% Air Dry Weight |
|---|---|
| Northeast | $8.50 |
| Lake Central | 8.50 |
| Southern | 11.00 |
| West Coast (in area) | 7.50 |
| West Coast (out area) | 13.50 |

Should freight charges actually exceed these allowances, the difference may be added to the maximum prices

### Domestic Rags

**New Rags**

(Prices to Mill f. o. b. N. Y.)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New White, No. 1 | 6.50 | @ | 7.25* |
| Silesias No. 1 | — | " | 5.75* |
| New Unbleached | 6.75 | " | 7.50* |
| Blue Overall | — | " | 5.50* |
| Fancy | — | " | 3.50* |
| Washables | — | " | 2.00* |
| Bleached Khaki Cuttings | — | " | 4.25* |
| Unbleached Khaki Cuttings | — | " | 3.50* |

*OPA Maximum Prices

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•

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Lynchburg, Virginia

# Price & Pierce Ltd.

## WOOD PULP & PAPER AGENTS

for domestic and export

60 East 42nd Street, New York 17, N.Y.

# LOBDELL "PURALOY" and PLATED ROLLS

COMBAT CORROSIVE ACTION

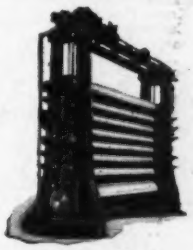
. . . of DYES and CHEMICALS

Employed in many parts of the paper machine, chilled iron rolls are most extensively used in machine calender stacks. During casting, the "chilling" process produces an extremely hard surface, highly resistant to abrasion.

For excessively severe service Lobdell has developed a series of special alloys, sold under the trade name "Puraloy". From 10 to 15 percent harder than ordinary chilled rolls, they are more resistant to abrasion and corrosion.

Since even these rolls will not always withstand the corrosive action of certain dyes and chemicals, Lobdell is prepared to supply chromium-plated rolls for some conditions.

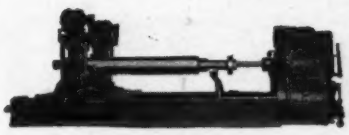
We will recommend the type roll best suited for use with the particular dyes or chemicals you use . . . no obligation.



Calender Stacks

**LOBDELL MACHINERY:** Calender Stacks . . . accurate, durable and easy to operate. Low maintenance costs. Chosen unanimously by many leading paper mills.

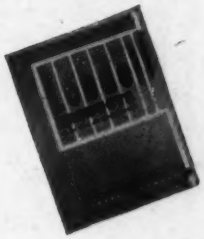
Roll Grinder . . . Takes the "guess work" out of roll grinding; grinds and feeds *automatically*. Grinds rolls accurately in your own plant without tying up calender stacks unnecessarily.



Roll Grinder

**ROLL CALIPERS . . .**

For keeping accurate check on rolls before and after grinding. Light weight, extremely accurate. Easily adjusted for varying roll diameters.



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Name .....
Position .....
Send Data on Items Checked:
Grinders Stacks Rolls
Roll Calipers PTJ, 12-13

SIGN and MAIL... today

# LOBDELL

COMPANY ESTAB. 1836 WILMINGTON 99, DEL.

Built and sustained upon the rights to FREE COMPETITIVE PRIVATE ENTERPRISE guaranteed by the Constitution of the United States

New Improved Roll Grinding Machines • Rolls • Calender Stacks • Roll Calipers

### Old Rags

| | | | |
|---|---|---|---|
| White, No. 1— | | | |
| Repacked | *3.80 | " | — |
| Miscellaneous | *3.20 | " | — |
| White, No. 2— | | | |
| Repacked | *2.90 | " | — |
| Miscellaneous | *2.65 | " | — |
| Thirds and Blues— | | | |
| Repacked | *2.20 | " | — |
| Miscellaneous | *1.30 | " | — |
| Roofing Rags— | | | |
| No. 1 | *1.55 | " | — |
| No. 2 | *1.45 | " | — |
| No. 3 (bagging) | *1.35 | " | — |
| No. 4 | *1.35 | " | — |
| No. 5A | *1.35 | " | — |
| Old Manila Rope | 5.75 | " | — |

* OPA Maximum Prices.

### Foreign Rags

Pre-War Quotations
All Prices Nominal

| | | | |
|---|---|---|---|
| New Rags | | | |
| New Dark Cuttings | 2.25 | @ | 2.40 |
| New Mixed Cuttings | 2.00 | " | 2.20 |
| New Light Silesias | 5.50 | " | 5.75 |
| Light Flannelettes | 5.50 | " | 5.75 |
| New White Cuttings | 7.00 | " | 7.50 |
| New Light Oxfords | 4.00 | " | 4.50 |
| New Light Prints | 3.00 | " | 3.25 |
| Old Rags | | | |
| No. 1 White Linens | 7.50 | " | 8.50 |
| No. 2 White Linens | 6.50 | " | 7.50 |
| No. 3 White Linens | 4.50 | " | — |
| No. 4 White Linens | 2.25 | " | 3.25 |
| No. 1 White Cotton | 4.25 | " | 4.75 |
| No. 2 White Cotton | 3.25 | " | 3.75 |
| No. 3 White Cotton | 2.50 | " | 3.00 |
| No. 4 White Cotton | 1.90 | " | 2.20 |
| Extra Light Prints | 2.00 | " | 2.40 |
| Ord. Light Prints | 1.75 | " | 2.15 |
| Med. Light Prints | 1.55 | " | 1.95 |
| Dutch Blue Cottons | 2.25 | " | 2.50 |
| French Blue Linens | 3.00 | " | — |
| Checks and Blues | 2.00 | " | — |
| Linsey Garments | 1.90 | " | 2.00 |
| Dark Cottons | 1.50 | " | 1.60 |
| Old Shapperies | 1.30 | " | 1.45 |
| New Shapperies | 1.45 | " | 1.50 |
| French Blues | 2.25 | " | 2.50 |

### BAGGING

(Prices to Mill, f. o. b. N. Y.)

| | | | |
|---|---|---|---|
| Gunny No. 1— | | | |
| Foreign | Nominal | | |
| Domestic | 3.25 | @ | 3.38 |
| Wool Tares, light | 3.25 | " | 3.50 |
| Wool Tares, heavy | 3.50 | " | 3.75 |
| Bright Bagging | 3.25 | " | 3.50 |
| Manila Rope— | | | |
| Foreign | — | " | — |
| Domestic | *5.75 | " | — |
| Jute Threads | 5.50 | " | — |
| No. 1 Sisal Strings | *4.00 | " | — |
| Mixed Strings | 2.00 | " | — |

* OPA Maximum Prices.

### Old Waste Papers

(F. o. b. New York)

OPA Maximum Prices, Baled

| | | | |
|---|---|---|---|
| No. 1 Hard White Envelope Cuts, one cut | 3.37½ | @ | — |
| No. 1 Hard White Envelope Cuts | 3.12½ | " | — |
| No. 1 Hard White Shavings, unruled | 2.87½ | " | — |
| No. 1 Hard White Shavings, ruled | 2.50 | " | — |
| Soft White Shavings, one cut | 2.87½ | " | — |
| No. 1 Soft White Shavings | 2.50 | " | — |
| Soft White Shavings, Misc. | 2.15 | " | — |
| No. 1 Fly Leaf Shavings | 1.67½ | " | — |
| No. 2 Fly Leaf Shavings | 1.12½ | " | — |
| No. 1 Groundwood Fly Leaf Shavings | 1.25 | " | — |
| No. 2 Mixed Groundwood Fly Leaf Shavings | .90 | " | — |
| Mixed Colored Shavings | .75 | " | — |
| Mixed Groundwood Colored Shavings | .90 | " | — |
| Overissue Magazines | 1.67½ | " | — |
| No. 1 Heavy Books & Magazines | 1.92½ | " | — |
| Mixed Books | 1.10 | " | — |
| No. 1 White Ledger | 2.30 | " | — |
| No. 2 Mixed Ledger, colored | 2.00 | " | — |
| New Manila Envelope Cuttings, one cut | 2.87½ | " | — |
| New Manila Envelope Cuttings | 2.65 | " | — |
| Extra Manilas | 1.95 | " | — |
| Mixed Kraft, Env. & Bag Cuttings | 2.75 | " | — |
| Kraft Envelope Cuttings | 3.25 | " | — |
| Triple Sorted, No. 1 Brown Soft Kraft | 2.50 | " | — |
| New 100% Kraft Corrugated Cuttings | 2.25 | " | — |
| No. 1 Assorted Old Kraft | 1.75 | " | — |
| New Jute Corrugated Cuttings | .90 | " | — |
| Old 100% Kraft Corrugated Containers | 1.75 | " | — |
| Old Corrugated Containers | 1.40 | " | — |
| Box Board Cuttings | .72½ | " | — |
| White Blank News | 1.65 | " | — |
| Overissue News | 1.10 | " | — |
| No. 1 News | 1.00 | " | — |
| No. 1 Mixed Paper | .95 | " | — |
| Old Corrugated Containers | .82½ | " | — |
| Mill Wrappers | 1.10 | " | — |
| No. 1 New Light Burlap | 3.00 | " | 4.00 |
| New Burlap Cuttings | 3.75 | " | 4.00 |

### Twines

All Prices Nominal

(F. o. b. Mill)

(Soft Fiber)

| | | | |
|---|---|---|---|
| Coarse Polished— | | | |
| India | .21 | @ | — |
| White Hemp | .21 | " | — |
| Fine Polished— | | | |
| Fine India | .26 | " | — |
| Unpolished— | | | |
| Box | .17¼ | " | — |
| Paper Makers | .17 | " | — |
| Tube Rope | .19 | " | — |
| Wall Paper | .20½ | " | — |
| Wrapping | .23 | " | — |
| Soft Fiber Rope | .19 | " | — |
| Cotton | .25 | " | — |
| (Hard Fiber) | | | |
| Medium Java | .18 | " | — |
| Mex. Sisal | .16 | " | — |
| Manila | — | " | — |

## PHILADELPHIA

### Domestic Rags (New)

(Price to Mill)

| | |
|---|---|
| Shirt Cuttings— | |
| New White No. 1 | .07¼ |
| New White No. 2 | .05¾ |
| Light Silesias | .05¾ |
| Black Silesias, soft | .03¾ |
| New Unbleached | .07½ |
| Washable Prints | .04¾ |
| Washable No. 1 | .03 |
| Blue Overall | .05½ |
| Cottons—According to grades— | |
| Washable Shredding | .01¾ |
| Fancy Percales | .04¾ |
| New Black Soft | .03¼ |
| Khaki Cuttings— | |
| Unbleachable Cotton Cuttings | .03½ |
| Bleachable Cotton Cuttings | .04¼ |
| Men's Corduroy | .03½ |
| Ladies' Corduroy | .03 |
| Cottonades | .03¼ |

### Domestic Rags (Old)

| | | | |
|---|---|---|---|
| White No. 1—Repacked | 3.80 | @ | — |
| Miscellaneous No. 1 | 3.20 | " | — |
| Miscellaneous No. 2 | 2.65 | " | — |
| White No. 2—Repacked | 2.90 | " | — |
| Thirds and Blues— | | | |
| Miscellaneous | 1.80 | " | — |
| Repacked | 2.20 | " | — |
| Black Stockings— | | | |
| (Export) | Nominal | | |
| Roofing Stock— | | | |
| Foreign No. 1 | Nominal | | |
| Domestic No. 1 | 1.55 | " | — |
| Domestic No. 2 | 1.45 | " | — |
| Roofing Bagging | 1.35 | " | — |
| Old Manila Rope | 5.75 | " | — |

### Bagging

(F. o. b. Phila.)

| | | | |
|---|---|---|---|
| Gunny No. 1— | | | |
| Foreign | Nominal | | |
| Domestic | 3.00 | @ | 3.50 |
| No. 1 Clean bright— | | | |
| Sisal Strings | .04 | " | — |
| No. 2 Clean bright— | | | |
| Sisal Strings | .03 | " | — |
| Sisal Jute | .02½ | " | .03¼ |
| Scrap— | | | |
| No. 1 | 3.25 | " | 3.50 |
| No. 2 | 1.75 | " | 1.80 |
| Wool Tares, heavy | 4.00 | " | 4.25 |

### Old Papers

(F. o. b. Phila.)

OPA Maximum Prices, Baled

| | | | |
|---|---|---|---|
| No. 1 Hard White Envelope Cuts, one cut | 3.37½ | @ | — |
| No. 1 Hard White Shavings, unruled | 2.87½ | " | — |
| Soft White Shavings, one cut | 2.50 | " | — |
| White Blank News | 1.65 | " | — |
| Soft White Shavings, Misc. | 2.15 | " | — |
| No. 1 New Light Burlap | 3.00 | " | 4.00 |
| New Burlap Cuttings | 3.75 | " | 4.00 |

## BOSTON

### Old Papers

(F. o. b. Boston)

OPA Maximum Prices, Baled

| | | | |
|---|---|---|---|
| No. 1 Hard White Shavings, unruled | 2.87½ | @ | — |
| No. 1 Hard White Shavings, ruled | 2.50 | " | — |
| Soft White Shavings, Misc. | 2.15 | " | — |
| No. 1 Fly Leaf Shavings | 1.67½ | " | — |
| No. 2 Fly Leaf Shavings | 1.12½ | " | — |
| No. 1 Groundwood Fly Leaf Shavings | 1.25 | " | — |
| No. 2 Groundwood Fly Leaf Shavings | .90 | " | — |
| Mixed Colored Shavings | .75 | " | — |
| New Manila Envelope Cuts, one cut | 2.87½ | " | — |
| Hard White Envelope Cuts, one cut | 3.37½ | " | — |
| Triple Sorted No. 1 Brown Soft Kraft | 2.50 | " | — |
| Mixed Kraft Env. & Bag Cuttings | 2.75 | " | — |
| Kraft Envelope Cuttings | 3.25 | " | — |
| No. 1 Heavy Books & Magazines | 1.92½ | " | — |
| New Manila Envelope Cuts, one cut | 2.87½ | " | — |
| New Manila Envelope Cuttings | 2.65 | " | — |
| White and Colored Tabulating Cards | 2.25 | " | — |
| Ground Wood Tabulating Cards | 1.35 | " | — |
| White Blank News | 1.65 | " | — |
| No. 1 Assorted Old Kraft | 1.75 | " | — |
| No. 1 Mixed Paper | .95 | " | — |
| Overissue News | 1.10 | " | — |
| Box Board Cuttings | .72½ | " | — |
| New Corrugated Cuttings, Kraft | 2.25 | " | — |
| Old 100% Kraft Corrugated Containers | 1.75 | " | — |
| Old Corrugated Containers | 1.40 | " | — |
| Jute Corrugated Cuttings | 1.87½ | " | — |

### Bagging

(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Gunny Bagging— | | | |
| Foreign | (nominal) | | |
| Domestic | 2.75 | @ | 2.90 |
| Sisal Rope No. 1 | *4.75 | " | — |
| Sisal Rope No. 2 | * — | " | 4.00 |
| Mixed Rope | — | " | 1.55 |
| Transmission Rope— | | | |
| Foreign | (nominal) | | |
| Domestic | 2.75 | " | 3.00 |
| Manila Rope— | | | |
| Foreign | (nominal) | | |
| Domestic | 5.75 | " | — |
| Soft Jute Rope | 4.50 | " | 5.00 |
| Jute Carpet Threads | 3.00 | " | 3.50 |
| Bleachery Burlap | 8.50 | " | 9.00 |
| Scrap Burlap— | | | |
| Foreign | (nominal) | | |
| Domestic | 3.00 | " | 3.25 |
| South American | — | " | 3.25 |
| Wool Tares— | | | |
| Foreign | (nominal) | | |
| Domestic | 4.25 | " | — |
| Aust. Wool Pouches | — | " | 3.60 |
| New Zealand Wool Pouches | — | " | 3.30 |
| New Burlap Cuttings | 4.75 | " | 5.00 |
| Heavy Baling Bagging | 4.00 | " | 4.25 |
| Paper Mill Bagging | 2.50 | " | 3.00 |
| No. 2 Roofing Bagging | 1.35 | " | — |

* OPA Maximum Prices.

### Domestic Rags (New)

(F. o. b. Boston)

| | | | |
|---|---|---|---|
| Shirt Cuttings— | | | |
| New Light Prints | .04½ | @ | .04¾ |
| Fancy Percales | .04¼ | " | .05 |
| New White No. 1 | .06¾ | " | .07 |
| New Light Flannelettes | .03½ | " | .04 |
| Canton Flannels, Bleached | .06 | " | .06¼ |
| Underwear Cutters, Bleached | .06¼ | " | .06¾ |
| Underwear Cutters, Unbleached | .06¼ | " | .06 |
| Silesias No. 1 | .06 | " | .06¼ |
| New Black Silesias | .03 | " | .03½ |
| Red Cotton Cuttings | .03½ | " | .04 |
| Soft Unbleached Blue Cheviots | .06¼ | " | .06¾ |
| Fancy | .05¼ | " | .06 |
| Washable | .02¾ | " | — |
| Khaki Cuttings | .02¾ | " | .03 |
| O. D. Khaki | .02¾ | " | .03½ |
| Corduroy | .03¼ | " | .03½ |
| New Canvas | .06¼ | " | .06½ |
| B. V. D. Cuttings | .06¾ | " | .06¾ |

### Domestic Rags (Old)

(F. o. b. Boston)

| | | | |
|---|---|---|---|
| White No. 1— | | | |
| Repacked | 3.80 | @ | — |
| Miscellaneous | 3.20 | " | — |
| White No. 2— | | | |
| Miscellaneous | 2.65 | " | — |
| Twos and Blues, Repacked | 2.20 | " | — |
| Old Blue Overalls | 2.25 | " | 2.30 |
| Thirds and Blues, Repacked | 2.20 | " | — |
| Miscellaneous | 1.80 | " | — |
| Black Stockings | 3.50 | " | 4.00 |
| Roofing Stock— | | | |
| No. 1 | 1.55 | " | — |
| No. 2 | 1.45 | " | — |
| No. 3 | 1.35 | " | — |
| No. 4 | 1.35 | " | — |
| No. 5, Quality A | 1.35 | " | — |
| Quality B | 1.20 | " | — |
| Quality C | .95 | " | — |
| Old Manila Rope | 5.75 | " | — |

* OPA Maximum Prices.

### Foreign Rags

(F. o. b. Boston)

| | |
|---|---|
| Canvas | (nominal) |
| Dark Cottons | (nominal) |
| Dutch Blues | (nominal) |
| New Checks and Blues | (nominal) |
| Old Fustians | (nominal) |
| Old Linsey Garments | (nominal) |
| New Silesias | (nominal) |

## CHICAGO

### Waste Paper

(F. o. b. Chicago)

OPA Maximum Prices, Baled

| | | | |
|---|---|---|---|
| Shavings— | | | |
| No. 1 Hard White Envelope Cuts, one cut | 3.37½ | @ | — |
| No. 1 Hard White Shavings, unruled | 2.87½ | " | — |
| No. 1 Soft White Shavings | 2.50 | " | — |
| Misc. | 2.15 | " | — |
| No. 1 White Ledger | 2.30 | " | — |
| No. 2 Ledger, colored | 2.00 | " | — |
| No. 1 Heavy Books & Magazines | 1.92½ | " | — |
| Overissue Magazines | 1.67½ | " | — |
| New Manila Envelope Cuttings | 2.65 | " | — |
| No. 1 Assorted Old Kraft | 1.75 | " | — |
| No. 1 Mixed Paper | .95 | " | — |
| Box Board Cuttings | .72½ | " | — |
| Kraft Corrugated Cuttings | 2.25 | " | — |
| Old Corrugated Containers | 1.40 | " | — |
| Overissue News | 1.00 | " | — |
| No. 1 News | 1.00 | " | — |
| No. 1 White Ledger | 2.30 | " | — |
| No. 1 Heavy Books & Magazines | 1.92½ | " | — |
| White Blank News | 1.65 | " | — |
| Mixed Kraft Env. & Bag Cuttings | 2.75 | " | — |
| No. 1 Assorted Old Kraft | 1.75 | " | — |
| Overissue News | 1.10 | " | — |
| No. 1 News | 1.00 | " | — |
| No. 1 Mixed Paper | .95 | " | — |
| No. 1 Roofing Rags | 1.55 | " | — |
| No. 1 Roofing Bags | 1.45 | " | — |

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*(Associated with Union Screen Plate Company)*

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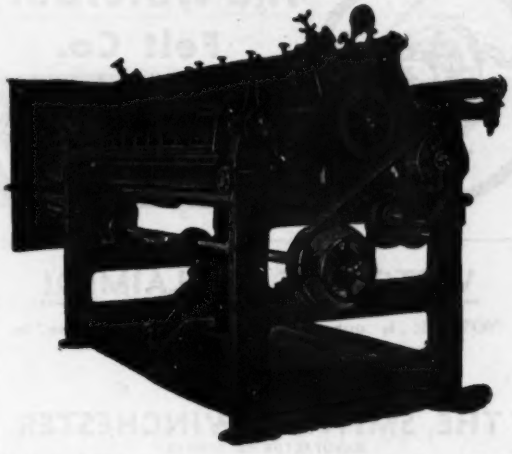
**SONOCO PRODUCTS COMPANY**
HARTSVILLE, S. C. · MYSTIC, CONN.

MODEL 28

ROLLER BEARING CUTTER



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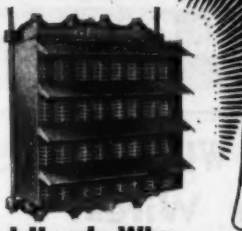
HERE'S A UNIT HEATER... THAT WILL LAST AS LONG AS YOUR BUILDING



GRID ... HIGH TEST CAST IRON FIN-HEATING SECTIONS

And Here's Why

★ One piece construction heating sections (patented) of high test cast iron that will withstand steam pressures up to 250 lbs.
★ No soldered, brazed, welded or expanded connections to become loose or develop leaks.
★ No electrolysis to cause corrosion, breakdowns, leaks or heating failures.

It's the material that makes a difference in GRID Unit Heaters. That's why they are free from maintenance expense. Many units in operation 15 years without any maintenance. Capacity tables upon request.

Send now for new booklet "Corrosion in Unit Heaters" —free upon request.

D. J. MURRAY MANUFACTURING CO.

Wausau, Wisconsin

Producers of

SULPHUR

Large stocks carried at all times, permitting prompt shipments . . . Uniformly high purity of 99½% or better . . . Free of arsenic, selenium and tellurium.

TEXAS GULF SULPHUR CO. Inc.

75 E. 45th Street New York 17, N.Y.

Mine: Newgulf, Texas

**SCREENS**
of Perforated Metal

The Harrington & King Perforating Co.

5652 Fillmore St., Chicago 44, Ill. 114 Liberty St., New York 6, N. Y.

**PENNOTEX OIL CORPORATION**
29 Broadway
New York, N. Y.

AMORPHOUS WAXES
Melting Points 120° F. to 205° F.

For the Manufacture of

LAMINATING PAPER . . GLASSINES . . WATER-PROOFING . . GREASE PROOFING . . EXTENDERS FOR PARAFFIN, FOOD CONTAINERS, CONTAINER LININGS, ADHESIVENESS AND PROTECTIVE COATING.

*For High-Speed, Dependable*
**PAPER CONVERTING MACHINES**
contact
**POTDEVIN**
Paper Bag Machines, Aniline & Oil-Ink Presses, Waxing, Gluing, Varnishing, Laminating Machines.
POTDEVIN MACHINE CO.
EST. 1893
1223 38th ST BROOKLYN N.Y.
POTDEVIN

DEINKING — DECOLORIZING
K-121-B and K-C-2
COOKING PROCESSES
**THE KINSLEY CHEMICAL COMPANY**
12500 Berea Road Cleveland, Ohio

**ASTEN DRYER FELTS**
Asten-Hill Mfg. Co.
Philadelphia, Pa.
Asten-Hill, Ltd.
Valleyfield, Que., Can.

*The Trade-Mark of*
**DEPENDABLE FELTS**
The Waterbury Felt Co.
SKANEATELES FALLS, N. Y.

— PAPER MACHINERY —
**VICTORY IS ACCLAIMED!**
NOW—It is our responsibility to co-operate in the molding of an ENDURING PEACE.
**THE SMITH & WINCHESTER**
MANUFACTURING COMPANY
SOUTH WINDHAM, CONNECTICUT
Solicit your inquiries for REPAIRS or NEW EQUIPMENT which will receive our prompt attention as rapidly as controlled materials and skilled labor are made available.
The New Model "E"

Paper Trimmer.
— PAPER BAG MACHINERY —

**MANHATTAN and Condor**
Rubber Products for
INDUSTRY
THE MANHATTAN RUBBER MFG. DIVISION
OF RAYBESTOS-MANHATTAN, INC.
Executive Offices Passaic, New Jersey

**INTERNATIONAL WIRE WORKS**
**Fourdrinier Wires**
MENASHA, WISCONSIN

Volclay MOST COLLOIDAL BENTONITE
For the Paper Manufacturer
*Produced By*
AMERICAN COLLOID COMPANY
363 W. Superior St. — Chicago, Ill.

INDUSTRIAL TYCOL OILS-GREASES
A COMPLETE LINE
OF TYCOL LUBRICANTS SCIENTIFICALLY ENGINEERED FOR EVERY INDUSTRIAL USE
Tide Water Associated Oil Co.
Eastern Division
17 Battery Place, New York, N.Y.

Here is a paper to satisfy the experts — in color, in texture, in printing surface.

# ECUSTA

*Fine Flax Paper*

Suitable for offset, gravure, or letterpress reproduction, Ecusta paper has quality, dignity and distinction.

**ECUSTA PAPER CORPORATION**

PISGAH FOREST · NORTH CAROLINA

*Fine Flax Air Mail . . . Fine Flax Writing . . . Bible Papers*
*Special Makeready Tissue . . . Thin Paper Specialties*



# J. Andersen & Company

**21 East 40th Street**

**NEW YORK**

## Importers of Pulp

**BLEACHED AND UNBLEACHED SULPHITE, KRAFT PULP AND GROUND WOOD**



# UNITED BLACKS

**KOSMOS • DIXIE**

**PARIS BLACKS**

**Carbon blacks for all paper and board stocks—outstanding soft texture, particle fineness and jet black color. Takes well to the fiber, shows high retention.**

**Best for performance in the Beater and Jordan because of ease of wetting and ready dispersion in the furnish.**

**UNITED CARBON CO., INC.**

CHARLESTON, WEST VIRGINIA

NEW YORK · AKRON · CHICAGO

**MAGNUS BEATEX** is neutral, and has no effect on the pH of the stock. It is compatible with all sizes, colors and fillers. It is completely water soluble in acid, alkaline and acid solutions. It is added in suitable amount to the beater, to save beating time and jordanning.

That's its main job. But Beatex also increases retention of short fibres on the wire. More size, color and filler are retained in the web when Beatex is used in the beater. And with the reduced surface tension it brings about in the stuff, dewatering is faster.

Let us send a sample for careful trial.

MAGNUS

MAGNUS CHEMICAL COMPANY
24 SOUTH AVENUE, GARWOOD, N. J.
Paper Mill Cleaners

## JACK ROSS, Proprietor of

**ROSS PAPER MACHINERY CO.**

265 Passaic St., Newark 4, N. J.

Extends the Season's Greetings
to all
his friends in the Industry.

### HELP WANTED

## WANTED
## TECHNICAL SERVICE REPRESENTATIVES

Large eastern chemical manufacturer has several attractive openings for graduate chemists or chemical engineers with mechanical interests and experience in the manufacture of paper or paper boxes.

Work will require traveling east of Mississippi River and introducing established and new chemicals and chemical products into the paper and paper box fields, and assisting customers in solving technical problems relative to their use.

Must have good technical knowledge and ability to make effective contacts. Age 30 preferred.

Write stating education, age, experience, present employer, salary received and salary expected. Enclose recent snapshot.

Address replies Box 45-762 care of Paper Trade Journal. D-20

**WANTED**
**Experienced Salesman**

By established manufacturer of paper and pulp mill machinery. Must headquarter in middle west and travel to all mills east of Mississippi River. State age, family status, and detail of qualifications. Replies confidential. Box 45-798 care Paper Trade Journal. D-20

**EXPORT MANAGER**

Experienced man to head Export Department being established by mill. Excellent opportunity for person experienced in all phases paper export. Interview in New York. Address Box 45-780 care Paper Trade Journal. D-13

WANTED—Machine tenders and Back Tenders for cylinder machine mill located in southern Ohio making test liner grades. Address Box 45-788 care Paper Trade Journal. D-20

## CLASSIFIED ADVERTISING

**HELP WANTED**—5c a word. Double rate for heavy face type. Minimum charge $1.25.

**SITUATIONS WANTED**—5c a word, double rate for heavy face type. Minimum charge $1.25. If repeated ½ rate will be charged for each consecutive repetition.

**FOR SALE**—5c a word. Double rate for heavy face type. Minimum charge $1.25.

**WANTED**—5c a word. Double rate for heavy face type. Minimum charge $1.25.

**OPPORTUNITIES**—5c a word. Double rate for heavy face type. Minimum charge $1.25.

Classified advertising space may also be purchased at $3.00 per single column inch.

All classified advertisements are payable in advance.

If box number is used—35 cents additional.

**Address Replies**

to advertisements appearing under Box Numbers in care of
PAPER TRADE JOURNAL
15 West 47th Street
New York 19, N. Y.

### HELP WANTED

WANTED—Engineer Draftsman for Pacific Coast sulphate pulp and paper mill. Please give full particulars in first letter. Address Box 45-772 care Paper Trade Journal. D-13

### HELP WANTED

**CHARLES P. RAYMOND SERVICE, Inc.**
294 Washington St., Boston, Mass.
Specializing in Paper Mill Personnel

**Positions Now Open**

Chief Power Engineer, electrical engineer
Supt. cylinder machine mill on tag and manila specialties
Cost control engineer $6,000-8,000
Designing draftsmen
Head super-calender operator
Master mechanic charge maintenance, tissue mill
Asst. power plant superintendent
Boss machine tender, Canada
Back tenders and many others

We invite correspondence strictly confidential with employers seeking personnel and men seeking new positions. D-13

**WANTED**
**ENGINEER, DRAFTSMAN**

Opportunity for man with old established manufacturer of Paper and Paper converting machinery in Connecticut. Experience with Printing and Paper Bag Making Machinery desirable but not essential. Permanent position for right person. Write, giving age, experience and salary expected.

Address—Box 45-789 care Paper Trade Journal D-20

**PAPER MILLS ATTENTION!**

Are you looking for a new line for postwar trade? Are you searching for a new field in paper products? Then consider fine, lightweight tissues and specialties to increase your profits. I can show you how to make and sell your lightweight tissues. Available on consultant basis for your requirements. Address Box 45-790 care Paper Trade Journal. D-13

**WANTED**
**ENGINEERING DRAFTSMEN**

For design and development of insulation board mill equipment and allied machinery. Permanent position. Experience in design of paper mill equipment helpful but not required. Location South. State availability with complete details of experience.

Address Box 45-726 care Paper Trade Journal. J-3

**OPPORTUNITY for Paper Chemist for permanent postwar employment by long established manufacturer in suburban Chicago area. Excellent opening for an experienced technician having knowledge of the manufacture of pulp stocks and unsized paper as well as the treatment and impregnation of paper products. Should be able to supervise production processing in small quantities. Address Box 45-738 care Paper Trade Journal. D-6**

WANTED—Millwrights and Stationary Engineers for Paper Mill in Ohio community of 6,000 population. Address full particulars in first letter to box 45-802 care Paper Trade Journal. D-20

# DON'TS *for* DRAFTSMEN

1. Don't start a layout of mill equipment until you know what Black-Clawson, Shartle and Dilts have to offer.

2. Don't install only one pump on a vat system until you have checked to see if savings are possible by use of two pumps.

3. Don't specify shower deckles on non-overflow type vats—use vacuum deckle instead.

4. Don't spend hours laying out jordans, etc. to scale, when data sheets are available. Tell us what you need.

5. Don't specify beaters until you are sure a Hydrapulper and Cycling system cannot be laid in to better over-all advantage.

6. Don't specify any size piping simply because you happen to have it in stock. Specify proper size by checking with Shartle. Ask for data sheets on this subject, and slide rule.

7. Don't specify drives until you thoroughly understand Bulletin No. 127-B.

8. Don't spend hours and money working out a special headbox gate—see if molded rubber is your answer. Check our drawing No. C-33485.

9. Don't fail to keep notes on valuable points. Read the Messenger. If you're not on the list—get on.

10. Don't make two parts where one will do the trick—example: Agi-flo pump.

11. Don't hesitate to make original investigations. You'll probably find a lot of BC-S-D equipment near you.

12. Don't be without one or two good papers bearing on your work. Remember—the Messenger's free!

13. Don't balk at an excursion into the unknown—it may be profitable.

SHARTLE Dilts

**THE BLACK-CLAWSON CO., *Hamilton, Ohio***

DIVISIONS

SHARTLE BROS. MACHINE CO., *Middletown, O.*

DILTS MACHINE WORKS, *Fulton, N. Y.*

*Associate:* ALEXANDER FLECK LIMITED, *Ottawa, Canada*

## HELP WANTED

**SALARIED POSITIONS**

**$2,000-$25,000. Reconversion is creating lifetime opportunities now. This thoroughly organized confidential service of 35 years' recognized standing and reputation carries on preliminary negotiations for supervisory, technical and executive positions of the calibre indicated. Retaining fee protected by refund provision. Identity covered and present position protected. Send only name and address for details.**

**R. W. BIXBY, INC.**
**117 Delward Bldg., Buffalo 2, N. Y. TF**

**CHEMIST OR CHEMICAL ENGINEER** for mill development work in the manufacture of fine writing and printing papers. Permanent position and excellent opportunity. Give full information including experience and age. Address Box 45-760 care Paper Trade Journal. D-13

**SALES ENGINEER** with knowledge of Pulp and Paper Machinery and experience in merchandising. Write giving background, references and salary expected. Address Box 45-606 care Paper Trade Journal. TF

**YOUR BOSS** wanted to be trained for job as Assistant Superintendent of Roofing Felt Mill located in New Orleans. Send complete resume giving experience, etc. to Box 45-809 care Paper Trade Journal. D-20

**SUPERINTENDENT** of Maintenance with paper mill experience, knowledge of power and electricity. Must be college graduate. Give full information including experience and age. Address Box 45-769 care Paper Trade Journal. D-20

**WANTED — ENGINEERS — Capable of handling general engineering work in established consulting engineers office specializing in pulp and paper mills. Address Box 45-469 care Paper Trade Journal. TF**

**WANTED—One man to represent an Eastern** paper converting mill through New York State. We will prefer one who has had some experience in paper sales, and who resides in the vicinity of Syracuse, N. Y. Address Box 45-596 care Paper Trade Journal. D-20

**WANTED**—Night Boss for medium sized Board Mill in New York area. Must be good paper maker and successful leader of men. Address Box 45-784 care Paper Trade Journal. D-27

**SALESMAN WANTED** for upper and central New York territories by large chemical manufacturing company. Excellent opportunity for a man located in that vicinity with knowledge of paper industry. Chemical background desirable, miscellaneous chemicals also handled. Write fully, giving experience and details. Address Box 45-800 care Paper Trade Journal. D-13

**PAPER TRANSPARENTIZER**—Technical man experienced in transparentizing paper. Ability to work with research chemists and design or assist in the design of equipment for transparentizing paper. Experience more important than age. Give complete information in first letter, including salary requirements. All answers held confidential. Address Box 45-825 care Paper Trade Journal. D-13

**COST ACCOUNTANT**—Experienced fine paper for mill located in Michigan. Give age, experience and salary expected. Address Box 45-779 care Paper Trade Journal. D-20

**WANTED**—Either one or two experienced machine tenders familiar with cylinder machines making .009 corrugated .030 liners to .040 chip board. Mill located in Caracas, Venezuela. Transportation from the States and back furnished. Contracts must be for at least a year. State experience and salary desired. Address Box 45-813 care Paper Trade Journal. D-27

**SALESMAN**—Experienced folding cartons and specialties calling on large manufacturers and wholesale jobbers. Unusual opportunity in protected territory. In reply give resume of experience and personal status. Replies confidential. Address Box 45-818 care Paper Trade Journal. J-3

**WANTED**—One machine tender and one back tender by a Pennsylvania Fourdrinier Kraft Mill. Steady work with no postwar problems. This mill is not dependent on open market paper sales, as entire production is absorbed by parent company. Address Box 45-819 care Paper Trade Journal. D-27

## SITUATIONS WANTED

**PULP AND PAPER ENGINEER**
**Many years research development and practical operating experience in the pulp and paper industry.**
**Have perfected method of reducing production cost and improving pulp quality.**
**Installation will pay for itself in a short time.**
**Have been employed as Consulting Engineer by large company for period of years.**
**Looking for connection with concern which desires to increase profits.**
**Prefer medium size plant having sulphate or soda process.**
**Address Box 45-711 care Paper Trade Journal. D-6**

**SALES OR INSIDE POSITION**—30 years experience fine and coarse papers. Address Box 45-782 care Paper Trade Journal. D-13.

**PAPER TECHNOLOGIST**—Several years operating and technical experience in fibreboard and boxboard mills and laboratories; manufacture and sales of rosin and wax sizing, etc. seeks position in paper industry. Address Box 45-796 care 45-764 care Paper Trade Journal. D-27

**PAPER CHEMIST**—with machine coating and asphalt emulsion experience, seeks position with a board mill. Address Box 45-797 care Paper Trade Journal. D-20

**EXECUTIVE**—At present of national folding carton manufacturer. Interested in connection with smaller manufacturer seeking young man with extensive experience to manage and expand sales. Replies confidential. Address Box 45-786 care Paper Trade Journal. F-28

**PAPER ENGINEER**—15 years paper mill experience. Practical operating, production and quality control, cost, development, maintenance, construction. Address Box 45-783 care Paper Trade Journal. D-13

**SUPERINTENDENT**—With technical as well as practical experience on cylinder products, such as, Tag, Butter, Carton, Bristols, Milk Cap and other ground wood specialties. Can also take charge of pulp mill. Address Box 45-778 care Paper Trade Journal. D-20

**EXECUTIVE TECHNICAL DIRECTOR AVAILABLE**—Now employed. Desires change to more progressive organization. Prefer position as Superintendent or assistant superintendent. Would consider Technical Director, Member of Tappi, 14 years diversified experience in manufacture of soda, sulphate pulp and fine papers. Address Box 45-826 care Paper Trade Journal. D-27

**PRACTICAL SUPERINTENDENT** on high grade folding boards. Sulphite and ground wood specialties. Test liner, etc. Address Box 45-739 care Paper Trade Journal. D-13

**ACCOUNTANT**—Expert Paper and Pulp Mill Costs, thorough knowledge paper mill practice gained through twenty years in the industry, desires connection where initiative and ability will be recognized. Address Box 45-748 care Paper Trade Journal. D-20

**PAPER CONVERTING SUPERVISOR.** Available, years Supervision, Cutting, Packing, Clerical, various papers. Address Box 45-754 care Paper Trade Journal. D-13

**PAPER MILL SUPERINTENDENT** — Now available. Seeks position Supt. or Asst. Supt. Converting grades, Kraft, Tissues. Address Box 45-795 care Paper Trade Journal. D-20

**YOUR BOSS** on high grade bonds and ledgers, also specialties. Expert on colors. In this position eleven years with one of the finest mills in America. Seeks exacting assignment. Address Box 45-811 care Paper Trade Journal. D-27

**WANTED**—Production or technical position by ex-fellowship student at Institute of Paper Chem. with 5 years experience in pulp, paper and coating; 3½ years in Navy. Now on terminal leave. Address Box 45-812 care Paper Trade Journal. D-13

**BOSS MACHINE TENDER** or Tour Boss—26 years experience in most all types of tissue, cigarette, facial and kraft bag. Good references. Address Box 45-816 care Paper Trade Journal. D-20

**WANTED**—Supervisory position with a progressive firm. Experiences—15 years converting business. Aniline and Rotary Printing. Paper Bags. Rubber Plates. Willing to go anywhere. Address Box 45-814 care Paper Trade Journal. D-20

## SITUATIONS WANTED

**CHEMICAL ENGINEER — PULP AND PAPER SCHOOL GRADUATE, WITH FIVE YEARS EXPERIENCE IN RESEARCH AND DEVELOPMENT WORK, DESIRES PERMANENT CONNECTION. Address Box 45-823 care Paper Trade Journal. D-13**

## FOR SALE

# FOR SALE

1—Valley Iron screw press.
1—#2 Miami Jordan.
1—#9 Emerson Jordan for direct connection to a motor, requires use of 400 H.P. motor.
1—Shartle Bros. Triplex 8 x 18.
1—2000 lb. Holyoke Beater.
1—1000 lb. Dayton Beater.
1—Jones pulper.
3—12 Plate Murray Dunbar Flat Screens.
1—18 Plate Flat Screen with scraper.
1—IMPCO centrifugal Pulp Screen Design No. 3.
10—Driers 36" x 70".
13—Driers 60" x 154".
20—Driers 36" x 82".
1—Buffalo Pump—5500 g. p. m., direct connected to 100 H.P. Motor (50' head).
3—Worthington turbine well pumps, 300 g.p.m.—for 14' and 16'—with motor.
1—45" Laminating Machine.
1—Roots-Connerswille Vacuum Pump.
1—60" Hudson Sharp 2 shaft slitter and winder.
1—72" Kidder two drum slitter and winder.
1—116" Moore & White slitter and winder. 4 Drum.
1—60" Moore & White slitter and winder set for ¼" slits.
1—60" Moore & White slitter and winder set for 1/16" slits.
1—40" Brown Carver trimmer.
2—84" Appleton single press wet machines.
1—42" Johnstone Slitter and Winder.

*Various sizes of Centrifugal Pumps. Write us regarding your particular requirements.*

***We are always in the market to purchase your surplus or idle machinery. What have you to offer?***

**J. J. ROSS COMPANY**
**250 Frelinghuysen Ave.**
**Newark 5, N. J.**
**Bigelow 3-3720** D-13

## FOR SALE

**66" x 46"—Sheridan 4—Past Model #25 Die Cutter.**
**36", 48", 72" Automatic Power Paper Cutters.**
**1, 2 & 3 Color, Meisel Rotary Printers.**
**12" x 16" Kidder 2-color Printer with all Attach.**
**15½" x 18" — Seybold 4-Post Embosser, Elec. Heated.**
**46", 50", 56" Miehle, Printers & Die Cutters.**
**40" & 52" Single & Double, Roll Coaters.**
**50" Waldron 6-Roll Polisher Coater.**
**72" Four Bar Slitter & Creaser.**
**Several sizes of Slitters & Rewinders, Creasers and Scorers. Write for latest Bulletin No. 124, listing over 100 Paper & Board Converting, Finishing, Box Making & Packaging Machinery—now on our floor. All Rebuilt & Guaranteed.**

**SOUTH WABASH ENGINEERING CO.**
**2937 S. Wabash Ave., Chicago 16, Illinois**
**F-14**

FOR SALE | FOR SALE | FOR SALE

(Note the Name)

# Ross Paper Machinery Co., 265 Passaic St., Newark 4, N. J., Humboldt 2-2177

## 1 COMPLETE FOURDRINIER MACHINE MILL. Wire 50′ x 79″; 25 Dryers, 2 decks. 68″ trim; 20 ton capacity; hydro electric plant; 240 KVA. This mill in operation. Must be sold at once. Price $60,000, including real estate.

### BEATERS
1—2500 lb. Downingtown Iron Tub.
2—1600 lb. Horne Iron Tub.
1—1200 lb. Holyoke Wood Tub.
1—2000 lb. E. D. Jones Iron Tub Beater. with washer-rebuilt.

### CALENDER DOCTORS
1 set of 16 Warren Doctors 104″ face with frames.
1 set of 8 Warren Doctors 88″ face with frames.

### CALENDER STACKS
1—6 roll Beloit. 110″ face.
1—11 roll Pusey & Jones. 104″ face.
1—9 roll Rice Barton 99″ face.
1—3 roll Moore & White 86″ face.
2—2 roll Holyoke 36″ face.
2—9 roll Moore & White—82″ face.

### CONVERTING EQUIPMENT
2—Hudson Sharp 63″ Slitters and Folding Machines for converting facial tissue. With motors and starters.
1—Dietz 65″ Toilet Converter. With motor and starter.
1—64½″ Hudson Sharp Toilet and Toweling converter. With motors and starters.
3—Sanitary Napkin Machines. With motors and starters. Capacity 105 pads per minute each.
1—Bliss Double Head Stitcher.
1—Boston Single Head Sticher.
1—Bliss Box Assembling Machine.
4—Waterville Grinders.
1—36″ Waldron Reeling Machine.
1—39″ Dampening Machine.
1—86″ Brush Coating Machine.
1—Copper Mixing Tank with agitator—40 gal.
1—Cast Iron Kettle 20″ x 24″ 2 outlets.

### CONVEYOR
1—Standard Conveyor 30′ long on wheels for handling bales of pulp. Direct connected to 5 h.p. motor.

### DRYERS
1—48″ diameter x 88″ face.
4—60″ diameter x 174″ face framed and geared.
1—36″ diameter x 102″ face with bearings.
1—Beloit Yankee. 186″ face, 12″ diameter with Messinger Bearings.
18—36″ diam. 82″ face 2 deck frames.
40—28″ diam. 96″ face 2 deck frames.

### EXTRACTOR ROLLS
1—Downingtown 24″ diameter, 135″ face, with rubber couch 18″ diameter.

### FESTOON DRYERS
100″ Proctor & Schwartz
60″ Proctor & Schwartz

### FLAT SCREENS
1—Moore & White 8 Plate.
1—Moore & White 10 Plate.
1—Sandy Hill Packer 10 Plate.
1—Trimbey Pulp Screen 30 ton cap.

### HEADING MACHINE
1—W&W Heading Machine—electric heated head.

### JORDANS
1—Dillon No. 2 Motor drive.
1—Appleton No. 2 motor drive.

### KNIFE GRINDER
1—72″ Seybold automatic used one year.

### LATHE
1—Sidney Machine & Tool Co. quick change. 10′ centers, 24″ swing; 2 chucks; and Face Plate.

### MISCELLANEOUS
700—Cameron slightly used Slitter Knives—$1.00 each. Purchased from a war cancellation.
2—Yankee Dryer doctor oscillators (Beloit)
2—Nugeat Oil Filters (new).
2—Beloit Fourdrinier Shakes.

### MOTORS
4—1000 h.p. motors, 2300 volts with all controls.
1—30 h.p. 600 R.P.M. 2300 V. 3 Ph. 60 cy.
1—40 h.p. 3600 R.P.M. 2300 V. 3 Ph. 60 cy.

### PLATERS
2—Holyoke 2 Roll 18″ dia. 36″ face.

### PULLEYS
185—Cone Lift and Solid Cast Iron Pulleys. *Various Sizes.*

### PULP EQUIPMENT
Complete Ground Wood Mill—
4—Sandy Hill four pocket Grinders. Each direct connected to 1000 h.p. motor, 2300 volts. 27″ stones. Spare stones, etc. Excellent condition. Will sell all or part.
2—Pusey & Jones vertical Digesters (welded) 7′ dia., 24′ high 125 lb. pressure.
8—Horizontal Digesters 15′ diam. 47′ face 150 lb. pressure.
3—Improved No. 2 Knotters.
1—Nichols-Herreshoff Lime Kiln.
1—Williams No. 30 Bark Hog.
1—Sumner Disc Barker 72″ dia.
1—36″ Bauer Bros. Single Revolving Disc Mill. Direct connected to 50 h.p. motor, 3 phase, 60 cycles, 220 volts, 1160 r.p.m.
1—Carthage 4 pocket 27″ grinder. Ball bearing equipment.
1—126″ face Kamyr Press.

### PULPERS
1—E. D. Jones direct connected to 60 h.p. motor with starting equipment.
1—Sturtevant Bale Pulper with conveyor & motors used three years.
1—Voith Pulper 20 tons cap.

### PUMPS
1—Frederick 400 g.p.m.—60′ head.
1—Pusey & Jones 5″ x 8″ Stock.
1—DeLaval 6″ x 6″.
1—Oliziti Acid 3″ Suction.
1—Midwest 6″ stock pump.
1—Frederick 550 g.p.m. 132′ head.
1—Frederick 400 g.p.m. 60′ head.

### REELS
2—Pusey & Jones 104″ face 18″ dia. bowls.
1—Pusey & Jones 115″ face 18″ dia. bowls.
1—2-bowl 100″ face 20″ dia. bowls.

### REFINERS
1—19″ Wiener Refiner with Regulating Valves.
2—1 Claflin Refiners. Bronze construction.

### RIGHT ANGLE WORM GEAR DRIVES
1—Cleveland 2 H. P.—10 to 1 ratio.
1—Philadelphia 15 H. P.—60 to 1 ratio.
1—Oliver 5 H. P.—51 to 1 ratio.
1—Grant 2 H. P.—34½ to 1 ratio.
1—Cleveland 2.3 H. P.—40 to 1 ratio.
1—Cleveland 1.2 H. P.—60 to 1 ratio.
1—Grant 2 H. P.—7 to 1 ratio.
1—Philadelphia 2 H. P.—600 to 1 ratio.
1—Philadelphia 15 H. P.—60 to 1 ratio.

### ROLL GRINDER
1—Lobdell Roll Grinder. Will take roll 24″ diameter x 160″ face.
1—Farrel Roll Grinder. Will take roll 28″ dia. x 168″ face, with motors, starters and crowning attachment.

### ROLLS
140—Table, Dress, Felt, Wire, Breast and Calender Rolls. *Various Sizes.*
2—84″ face size press rolls. Top roll ebonite; 16″ dia. Bottom roll 36 density rubber —14″ dia.

### SATURATOR
1—Guyton-Cumfer 5 gates.

### SAVEALLS
1—A. D. Wood cylinder 48″ dia. 60″ face.
1—Dorr Company #40 ADKA Saveall 340 —440 GPM. Used 1 month.
1—Dorr Company #50 ADKA Saveall 550—680 GPM. Used 1 month.

### SCREW PRESS
1—Valley Iron Screw Press. Used 2 years.

### SHEETERS
1—86″ Hamblet Single Knife Sheeter with Moore & White layboy; 4 roll backstand.
1—125″ Horne Duplex Sheeter.

### SLITTERS AND WINDERS
1—88″ face, two drum Warren Slitter and Winder.
1—42″ Cameron—2 shafts slitter & winder, Model 24, used 8 months.
1—116″ 2 drum Pusey & Jones slitter & winder.
1—116″ Moore & White 4 drum slitter and winder with motor and starter. Will rewind 50″ diameter. Complete with 3 ton Sprague Electric Hoist.
1—100″ face 2 drum Warren Slitter and Winder.

### STOKERS
2—Iron Fireman Pneumatic Spreader Stokers for two—300 h.p. boilers. Complete with undergrates, fans, sly ash fans, weight lory, portable car unloader. All direct connected to motors with starters. Used 1 year.

### STUFF PUMPS
7—10″ x 20″ Shartle triplex.
1—8″ x 18″ Shartle triplex.
1—12″ x 16″ Shartle triplex.
1—12 x 12 Goulds Triplex.
1—7″ x 16″ Shartle triplex.

### SUPERCALENDER STACKS
1—7 roll Holyoke 72″ face; 3 paper and 4 iron rolls. 1 new spare paper roll.
1—7 roll Holyoke 52″ face; 3 paper and 4 iron rolls. 1 new spare paper roll.

### THICKENERS
1—Shartle Bros. Thickener. Cylinder Mold 72″ face x 36″ diameter with 16″ diameter couch.
4—Improved Paper Mchy. Co. Thickeners. Cylinder mold 132″ face x 48″ diameter, with 24″ diameter couchs.

### TRIMMERS
1—56″ Smith & Winchester Undercut with motor.
1—30″ Eureka Hand Operated.

### TURBINES
1—Westinghouse Turbine Generator 3125 KVA—600 volts—3 phase—60 cycle—30 lb. back pressure.
1—General Electric Turbine Paper Machine Drive. 250 h.p.—350 r.p.m. 125 lb. steam pressure.

### TWISTING MACHINES
1—36 Spindle Brownell Twister with motor.

### UNWINDERS
1—52″ Johnstone Uniform Tension Unwinder with auto, hydraulic brakes. Used 6 months.
1—42″ John Waldron Unwinder. Used 1 year.

### VACUUM PUMPS
1—14″ x 20″ Connersville.
1—12″ x 18″ Connersville.

### WASHERS (Beaters)
1—54″ face—45″ diam. with rigging.
1—52″ face—52″ diam. with rigging.

### WELL PUMP
1—A. D. Cook 100 g.p.m. 175′ head, 70 feet in well 6″ drop in pipe—6¾″ bronze double acting cylinder. Direct connected to 10 h.p. motor.

### YANKEE DRYER
1—Beloit 186″ face 12′ diameter with Messinger Bearings.

**AMERICA'S LARGEST BUYERS OF PAPER MAKING MACHINERY**
LIBERAL ALLOWANCES FOR YOUR USED MACHINERY.
We will buy from a single item to complete mill—including real estate.

## FOR SALE

**REVAMPING AND BUILDING MILL AND CAN OFFER FOR SALE**

One large Breaker Beater complete
One small Beater Complete
1—30" Diameter X 90" Face cylinder mould
1—Bird Shartle Duplex plunger stock pump
1—New pair cast steel double suspension spring type beater bearings for 8" diameter journal—Noble & Wood beater roll. Never used
1—Used old style lighter beam for 8" diameter journal Noble & Wood beater
1—New reinforced design lighter beam for 8" diameter journal—Noble & Wood beater roll. Pattern No. 983. Never used.
2—200 KVA —33000-2300/4000 volts transformers
90—52" Face steel dryer felt rolls—1—7/16" journals
1—60" Face cast iron taper pulley—2 15/16" bore taper 3½"x28½"
4—60" diameter x 83" face dryers
1—3" to 12" Cox & Sons Pipe threading machine
1—30" Noble & Wood impeller for circulation stock in beater.

A visit to the mill would prove profitable as we have many items for sale in numerous to mention. See our superintendent Mr. O. P. Fennell at our plant in Walloomsac, New York.

**WALLOOMSAC PAPER MILLS, INC.**
**Mills: Walloomsac, New York**
**Main Office: 25 Vanderbilt Avenue**
**New York 17, New York** TF

**FOR SALE**

2—Millspaugh Suction Rolls 15" dia., 104" between bearings, 96" drilled face, complete with bearings and gear drive.

1—12" x 24" Connersville Vacuum Pump.

1—10" x 16" Connersville Vacuum Pump.

**OSBORNE PAPER MILL EQUIPMENT CO.**
Fulton, N. Y. D-13

**FOR SALE**

1—750 K.W. General Electric Curtis Steam Turbine Form E 150# steam pressure. 360° RPM, connected with Ingersoll Rand Barometric Condenser, Wheeler motor driven Vacuum Pump, Motor driven cooling Water Pump, Oil Pressure Governor on turbine. Exciter direct connected to generator, 937 K.V.A., P.F. 8750 K.W., 3600 RPM, 3 Phase, 60 Cycle, 2300 Volts.

This unit is complete and like new, run less than 6 months. Can be inspected on original foundations. Located in New York State.

**OSBORNE PAPER MILL EQUIPMENT CO.**
Fulton, N. Y. D-20

**FOR SALE**

8 Dryers 30" dia., 76" face complete with frames and gears.
2 Cylinder Moulds 30" dia. 68" face
2 R. C. Couch Rolls, 14" dia. 68" face
2 Chilled Iron Press Rolls, 12½" dia. 68" face
2 Squeeze Rolls 8" dia. 74" face
1 Pressure Roll, R. C., 12½" dia. 68" face
2 Calender Rolls, 12" dia. 70" face
1 Calender Roll, 14" dia. 70" face
1 Set 2 Spool Reels, 12" dia. 70" face

**OSBORNE PAPER MILL EQUIPMENT CO.**
Fulton, N. Y. D-13

FOR SALE—1 Hamilton-Corliss Variable Speed Twin Engine, size of cylinders 12" x 24". Also Triple-Deck Frames for ninety 36" dryers, any width. The Chesapeake Paperboard Co., Baltimore, 30, Md. TF

PAPER COATING MACHINERY — Waxing, Oiling, Gumming, Gluing, Carbon, Laboratory Coating and Treating Machines. High speed. New improvement. MAYER MACHINE COMPANY, Inc., 1155 Scottsville Road, Rochester, 11, N. Y. TF

FOR SALE—38" Oswego Automatic Clamp Cutter, fully rebuilt and guaranteed. Address Box 45-829 care Paper Trade Journal. D-13

## FOR SALE

**REBUILT ELECTRICAL MACHINERY**
**Slip Ring & Squirrel cage motors, 3 ph. 60 cy.**

| HP | Make | Speed | Voltage | Type |
|---|---|---|---|---|
| 300 | West. | 1750 | 2200/220/440 | CW |
| 200 | G.E. | 240 | 2200/220/440 | MT412 |
| 200 | G.E. | 600 | 2200/220/440 | IL |
| 150 | G.E. | 600 | 2200/220/440 | IM |
| 150 | West. | 600 | 220/440 | CW |
| 100 | West. | 1750 | 2200/220/440 | CI |
| 75 | G.E. | 720 | 220/440 | IK |
| 50 | West. | 870 | 220/440 | CS |
| 40 | G.E. | 870 | 220/440 | MTC |
| 2–150 | West. | 600 | 440/220 | Syn. |
| 100 | West. | 1200 | 440/220 | Syn. |
| 75 | West. | 870 | 440/220 | CS |

AC and DC Generating Equipment.

1000 amp. Westgh. Arc Welding M.G. Set 440/220 v. 3 ph. 60 cy. Syn. Motor with controls.
100 KW Ridg. 250/275 v. M.G. Set 1200 RPM dir. con. Ridg. Syn. Motor 220/440/2200.
2—300 KW G.E. R. Converters 250 v. DC with transformers 2300 or 4000 volt.
60 KVA Allis Chal. Turbo 240/3/60.
50 KW Westgh. Turbo 125 Volt D.C.
50 KW Westgh. Engine unit 125 V. D.C.
35 KW West. 125 v. DC—54 HP West. 220/440 v. 3/60 1160 RPM M.G. Set.
150 KW Cr. Wh. 250/275 v. 550 RPM DC Gen.
75 KW G.E. 125 v. Type DLC 700 RPM DC Gen.
3—New 200 KVA G.E. Trans. 2300/440 v. 1 ph. 60 cy.

We carry large stocks of A.C. and D.C. motors. We purchase for cash, items similar to above.

**MOORHEAD-REITMEYER CO., INC.**
**30th & Brereton Sts. Pittsburgh, Pa.**
***Dealing in Rebuilt Electrical Machinery, exclusively, for a quarter of a century.*** N-15

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1—16 x 24 Connersville Pump. Can be inspected at our plant.

**MUSKINGUM FIBER**
Coshocton, Ohio. D-13

**FOR SALE**

78" LANGSTON CUT-OFF KNIFE
36", 44", 48" PAPER POWER CUTTERS
66" x 46" SHERIDAN 4-POST DIE CUTTER
1 & 2 COLOR MEISEL ROTARY PRINTERS
12" x 16" KIDDER 2-COLOR ROTARY PRINTER
15" x 18" SEYBOLD 4-POST EMBOSSER
56", 50", 46" MIEHLE PRINTERS
50" WALDRON 6-ROLL POLISHER COATER
64" WALDRON DRUM REWINDER
52" DOUBLE SIDED COATER & SPREADER

**ALSO SLITTERS & REWINDERS, CREASERS, SCORERS, TRIMMERS, GLUERS, STITCHERS, CORNER CUTTERS AND NUMEROUS PAPER & BOARD CONVERTING MACHINERY. WRITE FOR BULLETINS, LISTING OVER 100 MACHINES, NOW AVAILABLE.**

**SOUTH WABASH ENGINEERING CO.**
2937 South Wabash Ave., Chicago 16, Ill. J-24

**FOR SALE**

1—11 x 15 Erie twin variable speed engine
1—14 x 14 x 16 Erie Ball twin variable speed engine
1—10 x 20 Shartle duplex stuff pump
1—8 x 18 Shartle triplex stuff pump
1—8 x 18 Shartle single stuff pump
1—7 x 16 Shartle duplex stuff pump
4—Black-Clawson 4 x 10 duplex stuff pumps

**SHARTLE BROS. MACHINE CO.**
Middletown, Ohio D-17

## FOR SALE

4—Rotary Sheeters—60" and 84" Clarks and 84" Hamblet with Moore & White Layboy.
1—Used Valley Iron Works Pulp Screw Press with herringbone speed reducer. Excellent condition.
1—Complete equipment for making 12" wide household waxed paper rolls, 1—Brightwood box machine, 1—National Metal Edge and 1—Schultz automatic roll machine.
1—E. D. Jones Imperial Jordan with 5/16" solid steel fillings and extra new plug filling directly coupled to 150 hp G.E. AC motor. Capacity 60 tons 24 hours. A-1 condition.
1—60" Meisel Heavy Duty Shear Cut Slitter & Rewinder.
1—76" Smith & Winchester Undercut Power Paper Cutter complete with suitable motor equipment. .Rebuilt and guaranteed.

Complete line of Self-Opening Bag Machines making from 1/2 to 25 lbs. inclusive. Also 2 flat and Square Bag Machines making 1/4, 1/2 and 1 lb. and the other 4 lb. bags.

**GIBBS-BROWER COMPANY, INC.**
**21 East 40th St., New York 16, N. Y.** TF

**FOR SALE**

2—iron end vats with molds 48 x 127
2—rubber covered couch rolls
3—sets primary press rolls, all rubber covered, one set 14", two sets 16", all 126" face
3—pair main press rolls 24 x 126", all rubber covered
36—rubber covered felt rolls 9¾ x 138"

Box No. 45-801 care Paper Trade Journal. D-13

**FOR SALE**

1—Shartle Miami 8 x 18 triplex stuff pump
1—Shartle Miami 10 x 20 duplex stuff pump

Above pumps in good condition.

**SHARTLE BROTHERS MACHINE CO.**
Middletown, Ohio D-13

**GOOD EQUIPMENT FOR SALE**

34" and 40" Slitters.
41" Hamblet Sheeter.
80" and 110" Mill Type Sheeters.
48" Brown & Carver Auto. Power Cutter.
63" Oswego Hand Clamp Cutter.
62" Two-roll Back-stand, new.
36" Waldron Paper Reel.
30" Waldron 7-color Wall Paper Printing Press.
68" Rice, Barton & Fales Slitter-Rewinder, for use on dry end of paper machine.
14 x 22 John Thomson.
Balers—New—both hand and power.

**THOMAS W. HALL COMPANY, Inc.**
**120 West 42nd St., New York 18, N. Y.** TF

## FOR SALE

Four cylinder machine
Molds 90" face
1 Beloit suction drum roll
1 pair squeeze rolls
2 main presses
36 dryers
3 calender stacks
2-spool reel
Slitter
White water pumps
new drives

**SHARTLE BROS. MACHINE CO.**
Middletown, Ohio
D-27

## FOR SALE

FOR SALE — Two Waterbury Speed Drives, Size 20, Type C, one rebuilt. Frank H. Davis Company, 175 Richdale Ave., Cambridge, 40, Mass. D-13

FOR SALE—126 drums Paisley asphalt rubber cement. Suitable for sealing and waterproofing cartons or paper containers of any kind also suitable for mfg. purposes. SURPLUS AND SALVAGE CO., INC., Main Street, Jamestown, N. Y. D-13

FOR SALE—Jones 2000 lb. iron tub beater, in perfect condition; Holyoke 1000 lb. iron tub beater, in perfect condition; 92" Langston Winder; 84" Kidder Winder; 72" Hamblet Cutter; 84" Cutter and Layboy. Frank H. Davis Company, 175 Richdale Ave., Cambridge 40, Mass. D-20

FOR SALE—5 new Drycor Wet Machine Felts, 41'9" x 60". Waterford Pulp and Paper Corp., Quaker Hill, Conn. J-3

## WANTED

**DRYERS WANTED**

**36" or 48" Diameter by 80", 84", 94", 112", or 116" face.**

**Steam pressure 50 lbs. Complete with Frames, Gears, Steam Joints, and Drive In Stand, if possible.**

**Address Box 45-815 care Paper Trade Journal.**

D-13

WANTED—Brightwood Box Machine. Address Box 44-836 care Paper Trade Journal. tf

WANTED — DISCARDED PAPER MILL FELTS. HIGHEST PRICES paid for all kinds of discarded paper mill felts. LARGE or SMALL QUANTITIES accepted. Prices quoted immediately on receipt of samples. ADDRESS: GLASER AND YOFFE, INC., 80 NORTH MAIN ST., NATICK, MASS. TF

WANTED—Cameron #6 slitter and rewinder —50" x 36" dia. preferred. Also—paper tube-rewinders, cut off machines, recutters, glue pots, Bliss 6 N. presses. State age, condition, price. Address Box 45-792 care Paper Trade Journal. D-27

WANTED—Individual interested in purchase of small folding carton plant. Replies held in confidence. Address Box 45-787 care Paper Trade Journal. F-28

## WANTED

**WANTED**

Rag cutter
Indenting rolls
Reversing drive for calender stacks
Drive for second press rolls
Double knife sheeter
Roll laminator or combiner
Variable speed turbine, 80—100 HP
Address: Box 45-781 care Paper Trade Journal. D-13

**WANTED**

**Used Equipment**

One Kidder Spot Sheeter and Erie Layboy 65 inch width. One 65 inch to 72 inch Seybold or other good make power operated straight knife. Give serial number, condition of the machines and other pertinent information in reply. Address Box 45-794 care Paper Trade Journal. D-20

**WANTED**

2-machine mill for toweling and tissue, either in New York state or in New England. Address Box 45-766 care Paper Trade Journal. D-27

WANTED—W & P Shredders, Evaporators, Generators and Boilers, Slitters, Cutters, Hydraulic Presses, Sheridan Presses, Dryers. Address Box 44-835 care Paper Trade Journa.

IN the market for one used but in first serviceable condition Paper and Cloth-gumming Machine, 63" wide. Send proposals to Mr. Ciro A Martinez, Purchasing Agent, Apartado Postal No 755, Monterrey, N. L., Mexico. D-21

WANTED—1 Wet Machine with press rolls not less than 50 inches wide. Address Box 45-785 care Paper Trade Journal. D-20

WANTED—40" to 42" Hamblet Sheeter, as is. Export. Cash ready. Address Box 45-808 care Paper Trade Journal. D-13

WANTED—Roll grinder for grinding and crowning calender rolls 26" diameter by 160" face. State make, age, condition and price. Address Box 45-827 care Paper Trade Journal. D-27

WANTED—Garment Sack and S.O.S. grocery bag machines. Describe manufacturer, size, range, condition equipment. Price. Cash purchase. Address Box 45-828 care Paper Trade Journal. D-13.

WANTED—Three color press, preferably Kidder, 30 or 36" cylinder. Would exchange two-color Kidder. Address Box 45-817 care Paper Trade Journal. D-13

**BLANKETS**

**Converted From Your Used Felts**

**Write for Full Details**

**BLOOMFIELD WOOLEN COMPANY**
**BLOOMFIELD, IND.**

WANTED—New or used rewinding machine for manufacture of shelf lining, lunch and wax rolls. Shultz machine preferred. Address Box 45-820 care Paper Trade Journal. D-13

WANTED—New or used folding machine which automatically folds light weight papers 20 x 30 to 10 x 10 size. Address Box 45-821 care Paper Trade Journal. D-13

WANTED—New or used paper towel converting machine for manufacture of roll and interfolded towels. Address Box 45-822 care Paper Trade Journal. D-13

WANTED—A Waldron 7 or 8 color 30" print machine. Also winder. Address Box 45-824 care Paper Trade Journal. D-13

## BUSINESS OPPORTUNITIES

WANTED to make permanent connection with mill to sell wrapping or tissue paper in the east. In position to make sizable investment. Address Box 45-681 care Paper Trade Journal. D-13

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Cylinder Covering a Specialty

FOR TOP PERFORMANCE **CINCINNATI RUBBER COVERED ROLLS**

THE CINCINNATI RUBBER MANUFACTURING CO. CINCINNATI, OHIO

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You still have time! In December, your employees' allotments to the Victory Loan through your company's Payroll Savings Plan offer a final chance to help speed the proud homecoming of our fighting men—and do all in medical power for our hospitalized heroes!

Make December a plantwide TOP-THE-QUOTA drive! Now's the time to spotlight your Payroll Savings Plan—and "brief" your Bond-selling organization for fast, last minute action!

***Resolicit every employee to buy the New F.D.R. Memorial $200 Bond***

The new Franklin Delano Roosevelt $200 Bond—better than actual cash because it earns interest—is a strong building stone toward the secure future of every employee-purchaser!

From now 'til the New Year—with plant rallies, interdepartmental contests and resolicitation—keep Payroll Savings Plan Bond-buying at a new Victory Loan high! Buying a Victory Bond is the best way of saying "Welcome Home" to our returning veterans! Also an active aid in assuring prosperity to your nation, your employees—and your own industry!

VICTORY LOAN

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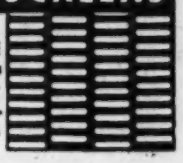

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Dorr Company
Downingtown Mfg. Co.
Improved Paper Machy. Corp.
E. D. Jones & Sons Co.
D. J. Murray Mfg. Co.
Montague Machine Co.
Moore & White Co.
Noble & Wood Machine Co.
H. K. Porter Company Inc.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

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Appleton Machine Co.
Carthage Machine Co.
Fibre Making Processes, Inc.
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Valley Iron Works Co.

**BARS**
Dilts Machine Works, Inc.
E. D. Jones & Sons Co.
The Moore & White Co.
Noble & Wood Machine Co.
Shartle Brothers Machine Co.
Simonds Worden White Co.
Valley Iron Works Co.

**BEARINGS**
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Jones, E. D. & Sons Co.
The Manhattan Rubber Mfg. Co.
Montague Machine Works
Rollway Bearing Co.
Shartle Brothers Machine Co.
SKF Industries Inc.
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T. B. Woods' Sons Company

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Black-Clawson Company
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Sandy Hill Iron & Brass Works
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Dilts Machine Works Inc.
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Noble & Wood Machine Co.
Shartle Brothers Machine Co.
Simonds Worden White Co.
Valley Iron Works Co.

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The Cincinnati Rubber Mfg. Co.
Graton & Knight Company
The Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc.
J. E. Rhoads & Sons
United States Rubber Co.
T. B. Wood's Sons Company
Worthington Pump & Machinery Corp.

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Niagara Alkali Co.
Noble & Wood Machine Co.
Pennsylvania Salt Co.
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Shartle Brothers Machine Co.

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Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Valley Iron Works
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**CASEIN**
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Black-Clawson Company
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Downingtown Mfg. Co.
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Fort Pitt Steel Casting Co. , Div. H. K. Porter Company, Inc.
Grinnel Company
Hamblet Machine Co.
E. D. Jones & Sons Co.
Lobdell Car Wheel Co.
Magnus Metal Corp.
Montague Machine Co.
Noble & Wood Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Union Machine Company
Union Screen Plate Co.
Valley Iron Works Co.
Walworth Company

**CENTRIFUGAL MACHINERY**
Bird Machine Co.
De Laval Steam Turbine Co.
Nichols Engrg. & Research Corp.
Ross, J. O. Eng. Co.
Shartle Brothers Machine Co.

**CHEMICALS**
Amer. Cyanamid & Chem. Corp.
American Resinous Chemicals Corp.
Ansul Chemical Co.
Calco Chemical Co.
Diamond Alkali Co.
Dispersion Process Inc.
Dow Chemical Company
E. I. du Pont de Nemours & Co., Inc.
General Dyestuff Corp.
Geigy Co., Inc.
Gottesman & Co.
Glidden Corp.
Hooker Electrochemical Company
The Mathieson Alkali Works, Inc.
Monsanto Chemical Company
National Oil Products Co.
Naugatuck Chemical Div. of U. S. Rubber Co.
Niagara Alkali Company
Paper Makers Chemical Department, Hercules Powder Co.
Pennsylvania Salt Mfg. Co.
Philadelphia Quartz Co.
Pioneer Salt Company
Pittsburgh Plate Glass Co., Columbia Chemical Division
Solvay Sales Corp.
Stauffer Chemical Company
United States Rubber Co.
Witco Chemical Co.
Wyandotte Chemical Corp.

**CLEANING MATERIALS**
Amer. Cyanamid & Chem. Corp.
Bird Machine Co.
E. I. du Pont de Nemours & Co., Inc.
Paper Makers Chemical Department, Hercules Powder Co.
Magnus Chemical Co.
Nichols Engrg. & Research Corp.
Oakite Products, Inc.
Pennsylvania Salt Mfg. Co.
Philadelphia Quartz Co.
Pittsburgh Plate Glass Co., Columbia Chemical Division
Solvay Sales Corp.
Wyandotte Chemicals Corp.

**CLUTCHES**
Appleton Machine Co.
Black-Clawson Company
Hudson Sharp Machine Company
Farrel-Birmingham Co.
Fawick Airflex Co., Inc.
Horton Manufacturing Co.
Rodney Hunt Machine Co.
Moore & White Co.
D. J. Murray Mfg. Co.
The Sandy Hill Iron & Brass Works
Stearns Magnet Mfg. Co.
Stearns Magnetic Mfg. Co.
T. B. Wood's Sons Company

**COATING MATERIAL**
Glidden Corp.

**COATING MACHINERY**
Horton Mfg. Co.
Hudson Sharp Machine Company
Moore & White Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
Shartle Brothers Machine Co.
Waldron Corporation, John
Weber, Herman G.

**COMPRESSORS**
Allis-Chalmers Mfg. Co.
De Laval Steam Turbine Co.
Ingersoll-Rand Co.
Nash Engineering Co.
Worthington Pump & Machinery Corp.

**CONSTRUCTION ENGINEERS**
Merritt-Chapman & Scott Corp.

**CONSULTING ENGINEERS**
W. H. L. D. Betz
Frederic C. Clark
Ferguson, Hardy S.
Hardy, George F.
Johnson & Wierck, Inc.
The Kohler System Company
Main, Inc., Chas. T.
Roderick O'Donaghue
J. E. Sirrine & Co.
Stone & Webster Engrg. Corp.

**CONTROLS**
The Bristol Company
Stickle Steam Specialties Co.

**CONVEYORS**
Black-Clawson Company
Murray, D. J. Mfg. Co.
Ross Engineering Corp., J. O.

**CORES**
Elixman Paper Co.
Sonoco Products Co.
Rodney Hunt Machine Co.
Montague Machine Co.
Smith & Winchester Mfg. Co.
Walker-Goulard-Plehn Co.

**COUPLINGS**
Black-Clawson Company
De Laval Steam Turbine Co.
Farrel-Birmingham Co., Inc.
E. D. Jones & Sons Co.
Lovejoy Flexible Coupling Co.
Moore & White Co.
Noble & Wood Machine C.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works
Waldron Corp., John
Westinghouse Electric Corporation
T. B. Wood's Sons Company

**CRANES**
Northwest Engrg. Co.

**CUTTERS**
Thomas W. Hall Co.
Noble & Wood Mach. Co.
Perkins & Son, Inc., B. F.
The Smith & Winchester Mfg. Co.
Taylor Stiles & Co.

**DAMPENERS**
Perkins & Son, Inc., B. F.
Valley Iron Works Co.

**DE-INKING**
Kinsley Chemical Co.

**DIGESTERS**
H. K. Porter Company Inc.
Pusey & Jones Corp.

**DOCTORS**
Bird Machine Company
Black-Clawson Company
Downingtown Mfg. Co.
Lobdell Co.
Montague Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

**DOCTOR BLADES**
Black-Clawson Company
The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc.
Montague Machine Co.
Rotogravure Engrg. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers
United States Rubber Co.
Westinghouse Electric Corporation

**DRIERS**
Black-Clawson Company
Murray Mfg. Co., D. J.
J. J. Ross Company
Ross, J. O. Engineering Corp.
Rotogravure Engrg. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

**DRIVES**
Allis-Chalmers Mfg. Co.
Appleton Machine Co.
Bird Machine Co.
Black-Clawson Company
Davis, Frank H., Co.
De Laval Steam Turbine Co.
Dilts Machine Works
Downingtown Mfg. Co.
Farrel-Birmingham Co.
General Electric Company
Horton Manufacturing Co.
Rodney Hunt Machine Co.
Montague Machine Co.
Moore & White Co.
Murray, D. J. Mfg. Co.
Noble & Wood Machine Co.
Pusey & Jones Corp.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
T. B. Wood's Sons Co.
Valley Iron Works Co.
Westinghouse Electric Corporation

**DUSTERS**
Appleton Machine Co.
Downingtown Mfg. Co.
Fibre Making Processes, Inc.
E. D. Jones & Son Co.
Moore & White Co.
Noble & Wood Machine Co.
Norwood Engrg. Co.
D. J. Murray Mfg. Co.

**DYESTUFFS**
Calco Chemical Co.
Ciba Gompany
E. I. du Pont de Nemours & Co.
Geigy Co., The
General Dyestuff Corp.
National Aniline Division, Allied Chemical & Dye Corp.
Paper Makers Chemical Department, Hercules Powder Co.
C. K. Williams & Co.
Witco Chemical Co.

**EQUIPMENT INSTALLATION**
Merritt-Chapman & Scott Corp.

**EVAPORATORS**
Black-Clawson Company
Goslin-Birmingham Mfg. Co., Inc.
Murray, D. J., Mfg. Co.
Swenson Evaporator Co., Div. of Whiting Corp.

**FANS**
General Electric Co.
B. F. Perkins & Son, Inc.
Ross Engineering Co., J. O.

**FEEDERS**
Builders-Providence, Inc.
Merrick Scale Mfg. Co.
Leeds & Northrup
Wallace & Tiernan

**FELTS**
Appleton Woolen Mills
Asten-Hill Mfg. Co.
Bloomfield Woolen Co
Bulkley, Dunton Pulp Co. Inc.
Draper Bros. Corp.
Huyck & Son, F. C.
Lockport Felt Co.
Mt. Vernon-Woodbury Mills, Inc.
Morey Paper Mill Supply Co
Orr Felt & Blanket Co.
Shuler & Benninghofen
Waterbury Felt Co.
Woodward, Baldwin & Co.

**FELT GUIDES**
Moore & White Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Waldron Corp., John

**FILLERS**
American Colloid Co.
Amer. Cyanamid & Chem. Corp.
American Resinous Chemicals Corp.
Johns-Manville Sales Corp.
W. H. Loomis Talc Corp.
Vanderbilt Co., R. T.
Witco Chemical Co.

**FILTERS**
Moore & White Co.
J. O. Ross Engrg. Corp.
Worthington Pump & Machy. Corp.
Witco Chemical Co.

**FLOORING, GRATING & TREADS**
Hendrick Mfg. Co.
Norton Co.
Manhattan Rubber Mfg. Div. of Raybestos-Manhattan, Inc.
United States Rubber Co.

**FORMING MACHINES**
Downingtown Mfg. Co.
Noble & Wood Machine Co.
Oliver United Filters
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

**FRICTION MATERIALS**
Johns-Manville Sales Corp.

**GEARS**
Black-Clawson Company

# WHERE TO BUY

De Laval Steam Turbine Co.
Downingtown Mfg. Co.
Farrel-Birmingham Co.
E. D. Jones & Sons Co.
Moore & White Co.
D. J. Murray Mfg. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.
Waldron Corp., John

**GRINDERS**
Farrel-Birmingham Co.
Lobdell Car Wheel Co.
Montague Machine Co.
Norton Company
Samuel C. Rogers and Company
The Sandy Hill Iron & Brass Works

**GRINDING WHEELS**
The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc.
Norton Company
Simonds Worden White Co.
United States Rubber Co.

**HEATING, VENTILATING AND AIR CONDITIONING**
The Appleton Machine Co.
Armstrong Machine Works
Fibre Making Processes, Inc.
E. D. Jones & Sons Co.
General Electric Co.
Grinnell Company
Leeds & Northrup
D. J. Murray Mfg. Co.
Noble & Wood Machine Co.
Ross Engineering Corp., J. O.
Shartle Brothers Machine Co.
Stickle Steam Specialties Co.
Valley Iron Works Co.
Worthing Pump & Mchy Corp.

**HOISTS**
Appleton Machine Co.
Dilts Machine Works
Rodney Hunt Machine Co.
Ingersoll-Rand Co.
E. D. Jones & Sons Co.

**HOSE (Air, Water, Suction, etc.)**
The Cincinnati Rubber Mfg. Co.
The Manhattan Rubber Manufacturing Division of Raybestos-Manhattan Inc.
United States Rubber Co.

**HUMIDITY CONTROL**
Steamaire Company

**INSTRUMENTS, TESTING AND MEASURING**
W. H. & L. D. Betz
N. P. Bowsher
The Bristol Company
Builders-Providence, Inc.
The Foxboro Company
General Electric
W. & L. B. Gurley
Leeds & Northrup Company
National Technical Laboratories
B. F. Perkins & Son
Taber Instrument Corp.
Taylor Instrument Cos.
Testing Machines Inc.
Wallace & Tiernan Instrument Co.

**INSULATION**
Johns-Manville Sales Corp.

**JORDAN FILLINGS**
Appleton Machine Co.
Behr Brothers Mfg. Co.
E. D. Jones & Sons Co.
Noble & Wood Machine Co.
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.

**KNIVES**
Black-Clawson Company
Dilts Machine Works, Inc.
Hamblet Machine Co.
E. D. Jones & Sons Co.
Simonds Worden White Co.
Valley Iron Works Co.

**LABORATORY EQUIPMENT**
Appleton Machine Co.
W. H. & L. D. Betz
Dilts Machine Works
E. D. Jones & Sons Co.
Leeds & Northrup Company
National Technical Laboratories
Noble & Wood Machine Co.
Taber Instrument Co.
Taylor Instrument Companies
Testing Machines, Inc.
Valley Iron Works

**LAY BOYS**
Hamblet Machine Co.
Moore & White Co.
Shartle Brothers

**LUBRICANTS**
Gulf Oil Corporation
Gulf Refining Co.
Sinclair Refining Co.
Socony-Vacuum Oil Co., Inc.
Sun Oil Company
The Texas Company
Tide Water Associated Oil Co.

**LUBRICATORS**
Hills-McCanna Co.

**MATERIAL HANDLING**
Northwest Engrg. Co.

**MICROMETERS & CALIPERS**
Farrel-Birmingham Co.
Montague Machine Co.
Lobdell Car Wheel Co.
Testing Machines, Inc.
Walker-Goulard-Plehn Co.

**MIXERS**
H. K. Porter Company
Youngstown Welding & Engrg. Co.

**MOISTENING EQUIPMENT**
The Spray Engineering Co.

**MOISTURE CONTENT CONTROL**
Steamaire Company

**MOTORS AND GENERATORS**
Allis-Chalmers Mfg. Co.
De Laval Steam Turbine Co.
General Electric Co.
Ingersoll-Rand Co.
Reliance Electric & Engrg. Co.
Westinghouse Electric Corporation

**PACKING BOXES**
Johnson Corporation
Shartle Brothers Machine Co.

**PACKING**
Johns-Manville Sales Corp.
The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc.
United States Rubber Co.

**PAPER MACHINES**
Black-Clawson Company
Downingtown Mfg. Co.
Thomas W. Hall Co.
Moore & White Co.
Pusey & Jones
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester

**PAPER MACHINE SLICES**
Black-Clawson Company
E. D. Jones & Sons Co.
Montague Machine Co.
The Sandy Hill Iron & Brass Works
Valley Iron Works Co.

**PAPERMILL BUILDERS**
Merritt Chapman & Scott Corp.

**PAPER TUBE MACHINERY**
Dietz Machine Works
Thomas W. Hall Co.
Hudson Sharp Machine Company
Langston Co., Samuel M.

**PASTING MACHINES**
Black-Clawson Company
Davis, Frank H., Co.
Murray, D. J., Mfg. Co.
Moore & White Co.
Potdevin Machine Co.
Shartle Brothers Machine Co.
Waldron Corp., John

**PERFORATED METAL**
Allis-Chalmers Mfg. Co.
Harrington & King Perforating Co.
Hendrick Mfg. Co.

**PIPE**
Black-Clawson Company
Crane Company
Grinnell Company
Johns-Manville Sales Corp.
Shartle Brothers Machine Co.
Stowe-Woodward Inc.
Taylor Forge & Pipe Works
Walworth Company
Youngstown Welding & Engrg. Co.

**PLATERS**
Perkins & Son, Inc., B. F.

**PLATES**
Black-Clawson Company
Hendrick Mfg. Co.
J. O. Ross Engrg. Corp.
Shartle Brothers Machine Co.
Timken Roller Bearing Co.

**PLUGS**
Black-Clawson Company
E. D. Jones & Sons Co.
The Noble & Wood Machine Co.
Shartle Brothers Machine Co.

**PRESSES**
Black-Clawson Company
Farrel-Birmingham Co.
Dietz Machine Wks.
Thomas W. Hall Co.
Hudson-Sharp Machine Co.
Paper Converting Machine Co., Inc.
Potdevin Machine Co.
Rotogravure Engineering Co.
Shartle Brothers
Valley Iron Works Co.
Waldron Corp., John
Weber, Homer G.

**PULPS**
Andersen Co., J.
Bulkley, Dunton Pulp Co., Inc.
Gottesman & Co., Inc.
Elof Hansson, Inc.
Perkins-Goodwin Co.
Price & Pierce, Ltd.
Pulp and Paper Trading Co.

**PULPSTONES**
Norton Company

**PUMPS**
Allis-Chalmers Mfg. Co.
Black-Clawson Company
Dorr Company
Downingtown Mfg. Co.
De Laval Steam Turbine Co.
Hills-McCanna Co.
Ingersoll-Rand Co.
Johnson Corp.
Moore & White Co.
Nash Engineering Co.
Noble & Wood Machine Co.
Paper Converting Mch. Co.
Quimby Pump Co. Div. of H. K. Porter Company, Inc.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Steamaire Company
Warren Steam Pump Company
Worthington Pump & Machinery Corp.

**RECOVERY SYSTEMS**
Bulkley, Dunton Pulp Co., Inc.
Rodney Hunt Machine Co.
Moore & White Co.
D. J. Murray Mfg. Co.
Pusey & Jones
Ross Engineering Corp, J. O.
Valley Iron Works Co.

**REELS**
Black-Clawson Company
Downingtown Mfg. Co.
De Laval Steam Turbine Co.
Hudson Sharp Machine Company
The Kohler System Company
Montague Machine Co.
Moore & White Co.
Paper Converting Mch. Co.
Rodney Hunt Machine Co.
Rotogravure Engrg. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
The Smith & Winchester Mfg. Co.

**REFINERS**
Appleton Machine Co.
Bahr Brothers Mfg. Co.
Bauer Brothers Co.
Dilts Machine Works
The Hermann Manufacturing Co.
E. D. Jones & Sons Co.
Murray, D. J. Mfg. Co.
Noble & Wood Machine Co.
Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Sprout, Waldron & Co.
Sutherland Refiner Corp.
Valley Iron Works

**REGULATORS**
Allis-Chalmers Mfg. Co.
Armstrong Machine Works
Bird Machine Company
The Bristol Company
The Brown Instrument Co.
The Foxboro Company
Jones, E. D., & Sons Co.
General Electric Co.
Johnson Corp.
Leeds & Northrup Company
National Technical Laboratories
Noble & Wood Machine Co.
Shartle Brothers
Stickle Steam Specialties Co.
Taylor Instrument Companies
Wallace & Tiernan
Westinghouse Electric Corpoartion

**RESINS**
American Cyanamid & Chemical Corp.
American Resinous Chemicals Corp.
Glidden Corp.
The Resinous Products & Chemical Co.

**ROLLS**
Appleton Machine Co.
Black-Clawson Company
Downingtown Mfg. Co.
Farrel-Birmingham Co.
Improved Paper Machy. Corp.
Lobdell Co.
The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc.
Montague Machine Co.
D. J. Murray Mfg. Co.
Noble & Wood Machine Co.
Perkins, B. F., & Sons Co.
Pusey & Jones Corp.
Roehlen Engraving Co.
J. J. Ross Company
Rodney Hunt Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Sinclair Co.
Smith & Winchester Mfg. Co.
Stearns Magnetic Mfg. Co.
Stowe-Woodward Inc.
United States Ruber Co.
Valley Iron Works Co.
Waldron Corp., John

**ROLL COVERS**
The Cincinnati Rubber Mfg. Co.
Stowe-Woodward Inc.
Youngstown Welding & Engrg. Co.

**ROLL STANDS**
Cameron Machine Co.
Johnstone Eng. & Machine Co.
The Kohler System Company
Moore & White Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
Shartle Brothers Machine Co.

**ROOFING MATERIALS**
Johns-Manville Sales Corp.

**SATURATING MACHINES**
Black-Clawson Company
Moore & White Co.
Noble & Wood Machine Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
Shartle Brothers Machine Co.
Waldron Corp., John
Weber, Herman C.

**SCALES**
Builders-Providence, Inc.
Merrick Scale Mfg. Co.

**Screen Plates**
Fitchburg Screen Plate Co.
Magnus Metal Corp.
Morey Paper Mill Supply Co.
Testing Machines, Inc.
Union Machine Co.
Union Screen Plate Co.

**SCREENS**
Allis-Chalmers Mfg. Co.
Appleton Wire Works
Appleton Machine Company
Bird Machine Company
Carthage Machine Co.
Dilts Machine Works, Inc.
Downingtown Mfg. Co.
Harrington & King Perforating Co.
Hendrick Manufacturing Co.
E. D. Jones & Sons Co.
Montague Machine Co.
Moore & White Co.
D. J. Murray Mfg. Co.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

**SHEET MACHINES**
Thomas W. Hall Co.
The Hermann Manufacturing Co.
Noble & Wood Machine Co.
Rotogravure Engrg. Co.
Valley Iron Works Co.

**SHOWER PIPES**
Bird Machine Company
A. E. Broughton & Co.
Downingtown Mfg. Co.
Improved Paper Machy. Corp.
Moore & White Co.
Shartle Bros. Mach. Co.
Smith & Winchester Mfg. Co.

**SHREDDERS**
Bauer Brothers Co.
Carthage Machine Co.

**SIZING**
American Cyanamid & Chemical Co.
American Resineus Chemicals Corp.
Black-Clawson Company
The Dow Chemical Company
du Pont, E. I., de Nemours & Co.
Glidden Company, Soya Products Div.
National Oil Products Co.
Paper Makers Chemical Department, Hercules Powder Co.
Philadelphia Quartz Co.
Pioneer Salt Company
Socony-Vacuum Co.
Stein, Hall & Co., Inc.

**SLITTERS**
Black-Clawson Company
Cameron Machine Co.
Carthage Machine Co.
Dietz Machine Works
Downingtown Mfg. Co.
Thomas W. Hall Co., Inc.
Hamblet Machine Co.
Hudson Sharp Machine Company
Langston Co., Samuel M.
Moore & White Co.
D. J. Murray Mfg. Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Smith & Winchester Mfg. Co.
Valley Iron Works Co.
Waldron Corp., John

**SOLENOID VALVES**
Steamaire Company

## WHERE TO BUY

**SPRAYING EQUIPMENT**
Steamaire Company
The Spray Engineering Co.

**STAINLESS STEEL**
Allegheny Ludlum Steel Co.
The Condon & Carpenter Co.
Eastern Stainless Steel Corp.
Industrial Steels, Inc.

**STARCH**
American Cyanamid & Chemical Corp.
Clinton Co.
National Starch Products, Inc.
Stein, Hall & Co., Inc.

**STEAM SPECIALTIES**
Johnson Corp.
Shartle Bros. Mch. Co.
Stickle Steam Specialties Co.

**STRAPPING & STRAPPING MACHINES**
Acme Steel Company
The Stanley Works

**STUFF CHESTS**
Downingtown Mfg. Co.
E. D. Jones & Sons Co.
Moore & White Co.
D. J. Murray Mfg. Co.
Noble & Wood Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

**SUCTION BOXES**
Black-Clawson Company
A. E. Broughton & Co.
Downingtown Mfg. Co.
E. D. Jones & Sons Co.
Moore & White Co.
The Sandy Mill Iron & Brass Works
Shartle Brothers Machine Co.
Westinghouse Electric Corp.

**SULPHUR**
American Cyanamid & Chemical Corp.
Stauffer Chemical Company
Texas Gulf Sulphur Co.
Witco Chemical Company

**SULPHUR BURNERS**
Valley Iron Works Co.

**SULPHUR DIOXIDE**
Ansul Chemical Company

**TALC**
American Cyanamid & Chemical Corp.
W. H. Loomis Talc Corp.
International Talc Company

**TANKS**
E. D. Jones & Sons Co.
Kalamazoo Tank & Silo Co.
The Manhattan Rubber Mfg. Division of Raybestos-Manhattan, Inc.
The Noble & Wood Machine Co.
H. K. Porter Company Inc.
Rodney Hunt
J. O. Ross Engrg. Corp.
Shartle Brothers Machine Co.
Stowe-Woodward Inc.
United States Rubber Co.
Waldron Corp., John
Youngstown Welding & Engrg. Co.

**TENSILE TESTERS**
Testing Machines, Inc.

**THICKENERS, DECKERS & SAVE-ALLS**
Bird Machine Company
Bulkley, Dunton Pulp Co. Inc.
Carthage Machine Co.
Dilts Machine Works
Dorr Co.
Downingtown Mfg. Co.
Montague Machine Co.
Moore & White Co.
D. J. Murray Mfg. Co.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

**TITANIUM**
E. I. Du Pont de Nemours & Co.
Titanium Pigment Co.
R. T. Vanderbilt Co.
Witco Chemical Company

**TOOLS**
Acme Steel Company
Ingersoll-Rand Co.
The Stanley Works
Walworth Company

**TRUCKS**
Automatic Transportation Co.

**TRAPS**
Armstrong Machine Works
Crane Co.
Grinnel Company
Johnson Corporation
Shartle Bros. Mch. Co.

**TUBE MACHINES**
Marathon Pdy. & Mch. Co.

**TUBS**
Rodney Hunt Machine Co.
Noble & Wood Machine Co.
Shartle Brothers
Valley Iron Works Co.

**TURBINES**
Allis-Chalmers Mfg. Co.
De Laval Steam Turbine Co.
General Electric Company
Hunt, Rodney, Mach. Co.
Westinghouse Electric Corp.
Worthington Pump & Machinery Corp.

**USED EQUIPMENT**
Frank H. Davis Company
Gibbs-Brower Co.
Thomas W. Hall Co.
Noble & Wood Machine Co.
Rotogravure Engrg. Co.
J. J. Ross Company
Ross Paper Machinery Co.
Shartle Brothers Machine Co.

**VALVES**
The Bristol Company
Crane Company
Dilts Machine Works
Fibre Making Processes, Inc.
The Foxboro Company
Hills-McCanna Co.
E. D. Jones & Sons Co.
Kennedy Valve Mfg. Co.
Magnus Metal Corp.
D. J. Murray Mfg. Co.
Noble & Wood Machine Co.
The Permutit Company
William Powell Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Stickle Steam Specialties Co.
Taylor Instrument Companies
Valley Iron Works Co.
Walworth Company

**VATS & VAT PARTS**
Union Machine Co.
Union Screen Plate Co.

**WASHERS**
Bird Machine Company
Downingtown Mfg. Co.
E. D. Jones & Sons Co.
Moore & White Co.
Noble & Wood Machine Co.
The Sandy Hill Iron & Brass Works
Rodney Hunt Machine Co.
Shartle Brothers Machine Co.
Valley Iron Works Co.

**WATER CONDITIONING**
The Permutit Company

**WAXING MACHINERY**
Black-Clawson Co.
Potdevin Machine Co.
Rotogravure Engrg. Co.
Shartle Brothers Machine Co.
Waldron Corp., John
Weber, Herman G.

**WELDING EQUIPMENT**
Allis-Chalmers Mfg. Co.
General Electric Company
Walworth Company
Westinghouse Electric Corp.

**WET MACHINES**
Black-Clawson Co.
Carthage Machine Co.
Downingtown Mfg. Co.
Moore & White Co.
Montague Machine Co.
Noble & Wood Machine Co.
Pusey & Jones Corp.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.

**WINDERS AND REWINDERS**
Black-Clawson Company
Cameron Machine Co.
Dietz Machine Works
Downingtown Mfg. Co.
Thomas W. Hall Co.
Hudson-Sharp Mach. Co.
Langston Co., Samuel M.
The Kohler System Company
Montague Machine Co.
Moore & White Co.
Paper Converting Mch. Co.
Potdevin Machine Co.
Pusey & Jones Corp.
Rotogravure Engrg. Co.
J. J. Ross Company
The Sandy Hill Iron & Brass Works
Smith & Winchester Mfg. Co.
Waldron Corp., John

**WIRES**
Appleton Wire Works
Black-Clawson Company
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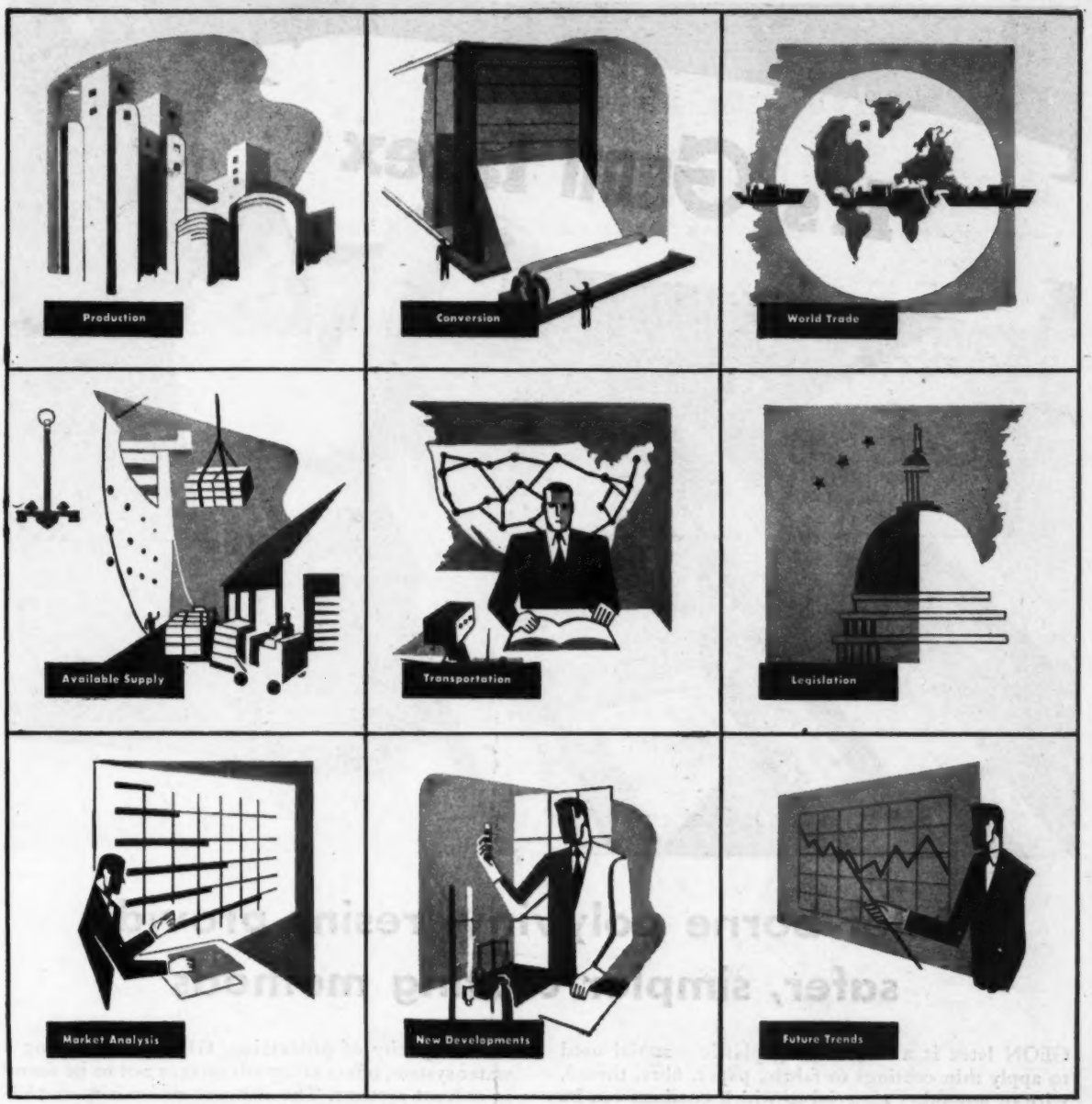


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